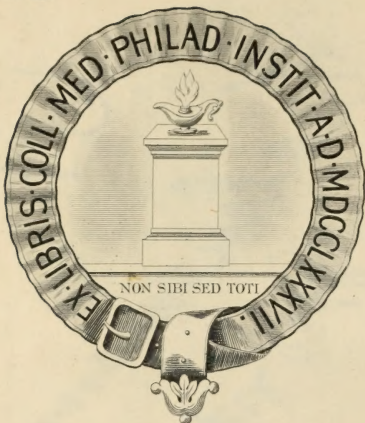




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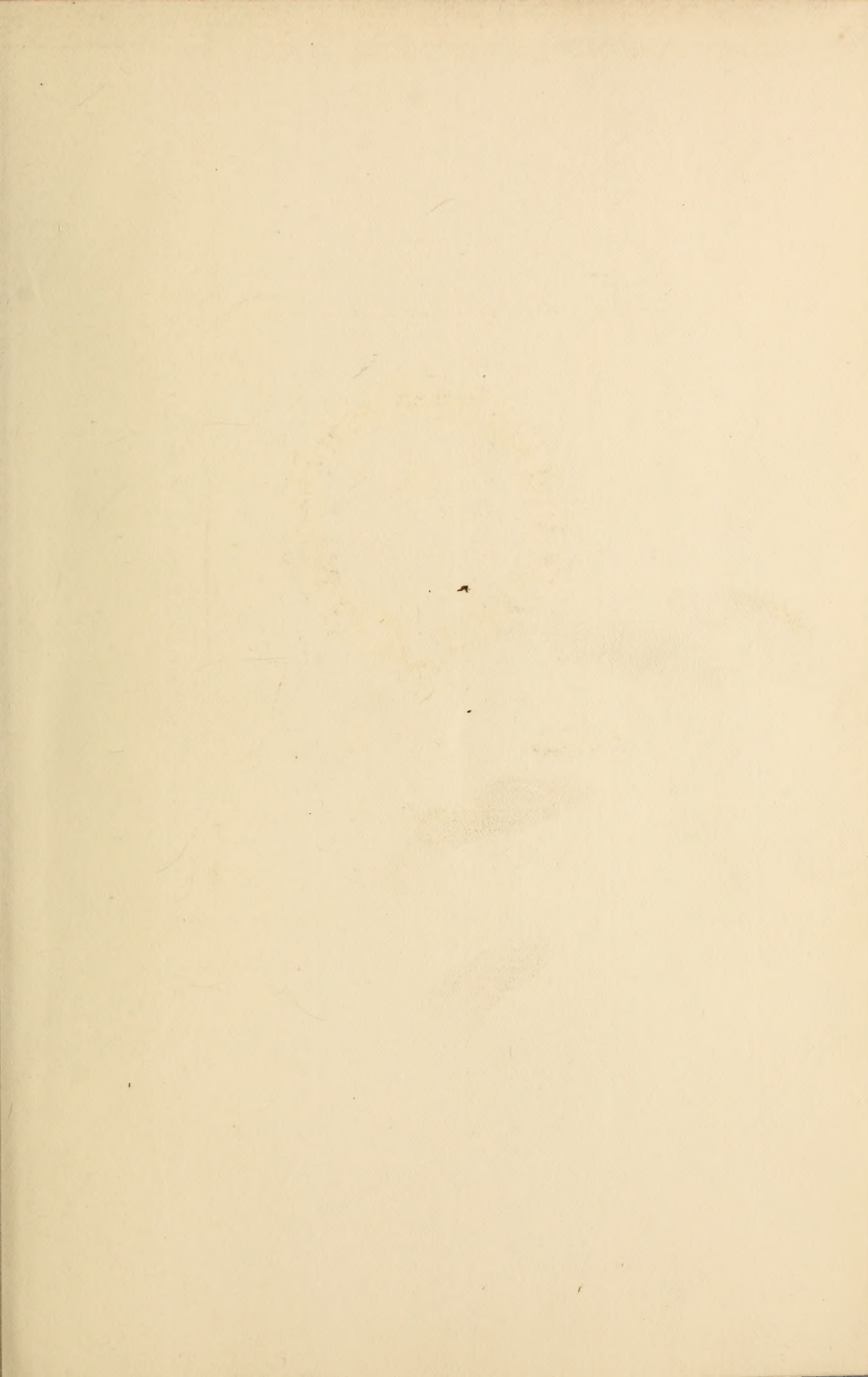


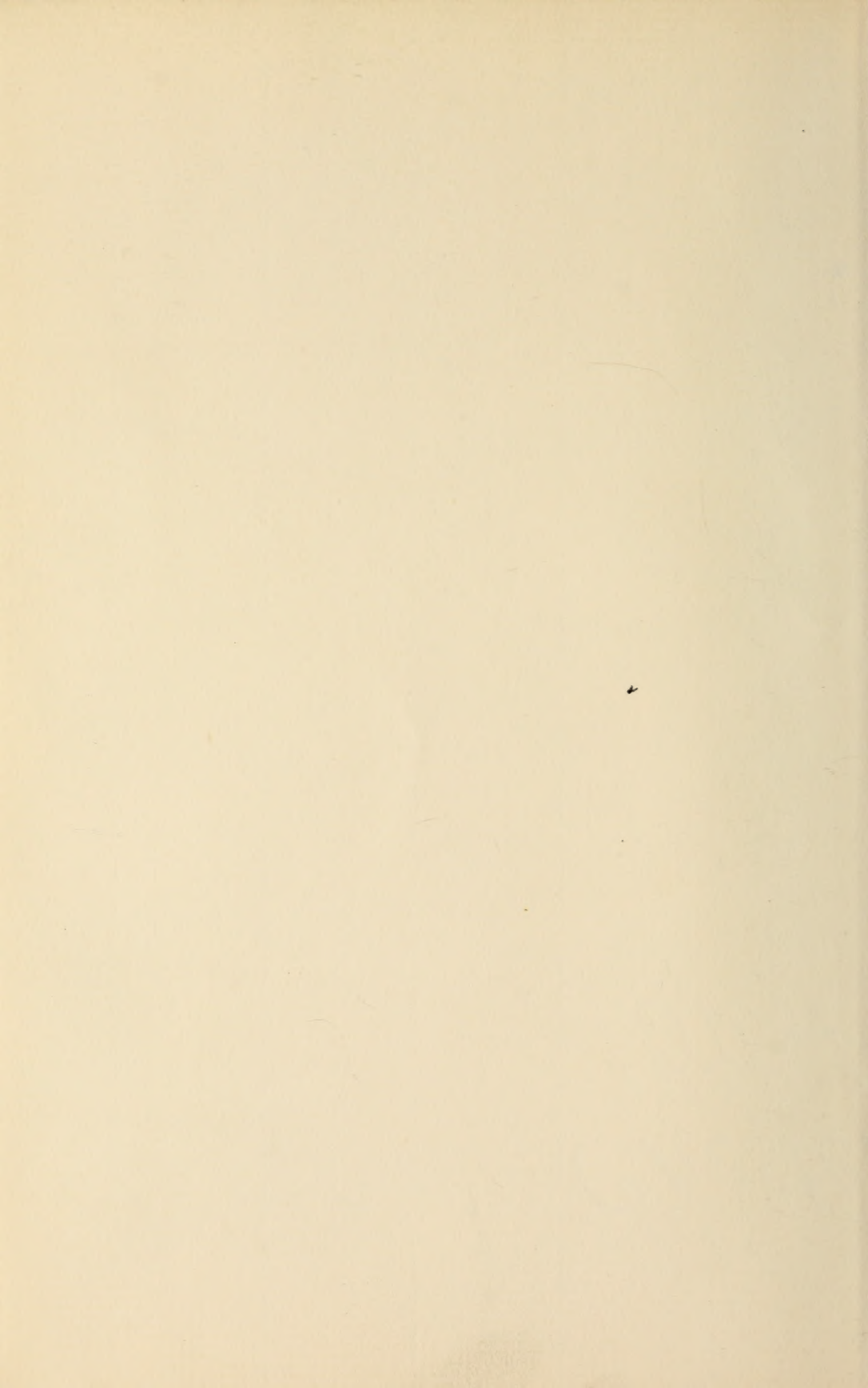
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JANUARY, 1904.

MANIC-DEPRESSIVE INSANITY WITH ILLUSTRATIVE CASES.

BY R. C. WOODMAN, M.D., MIDDLETOWN, N. Y.

WITHIN the last twenty years the belief that the manic-depressive insanity as described by the German alienist, Kraepelin, and his pupils, is a distinct entity has been gaining ground, both in Europe and America. Until recently, there has been little literature accessible upon this subject in English, but with Defendorf's account in his *Clinical Psychiatry*, and Hoch's article in the last edition of *The Reference Handbook of Medicine*, clear and excellent descriptions of the disease may be obtained.

It may be said in general that this psychosis includes most of the cases of what are commonly regarded as mania, both acute and recurrent; cases of melancholia occurring in young persons; together with some cases of mental depression of middle and advanced life; and the alternating and circular insanities.

The consideration and description of these, as separate disease processes, has always been marred by the total lack of a trustworthy and definite pathology. The congestions, active and passive, and anæmias of the brain, described by some authors as occurring in individual post-mortems, have no proven relationship to the melancholic or manic mental symptoms. Observation of the retinal circulation, anatomically and physiologically a part of that of the brain, gives no uniform result on which a pathology can be based; the complete recovery

of mental health [so often observed makes the process evidently little more than functional; leaving the circulatory theory the status only of a more or less plausible hypothesis; an additional element in the antithesis supposed to exist between mania and melancholia.

An examination of these titles in any standard work on diseases of the mind shows that they are but names for groups of symptoms. Mania, for instance, is usually applied to any condition of excitement, restlessness, or emotional exaltation; whether it occur in epilepsy or general paresis; from delirium tremens or exhausting bodily disease; in an old man, restless in the late stages of senile dementia, or an active young man who cannot speak rapidly enough to emit all the flood of words that press for utterance. The word *mania*, to illustrate, is used to cover any loss of self control much as *fever* indicates rise in temperature; and simply to say that a patient has a mania means nothing more definite, and conveys no more idea of the probable course and outcome of the disease than to say he has a fever.

In a similar manner melancholia covers depression, whether due to a profound neurasthenia; to bodily weakness or organic disease; or to an active psychosis. Even more than mania it is in some degree an accompanying symptom of many forms of sickness.

Again, the use of mania, melancholia and alternating insanity, as names for diseases in the sense that typhoid fever, for example, is the name of a disease, with distinct cause, pathology, course and outcome, meets with grave difficulties upon the clinical side, for it has been noted by many observers that almost all cases of mania give a history of from a few days or weeks of physical indisposition and lowness of spirits preceding the outbreak. Moreover, many cases, beginning we will say, as mania, having entirely recovered, will again become insane and present the symptoms of a typical melancholic attack, or *vice versa*. Or, instead of recovering, they may develop into an alternating psychosis. Then there are cases presenting at the same time symptoms from each group, cases which cannot be properly regarded as belonging to either, yet with some of the characteristics of both; an impossibility according to the usual idea of these as opposed and mutually exclusive dis-

orders. Besides, from the standpoint of the clinician, it is unsatisfactory in the extreme to diagnose a case as, for example, melancholia, to be compelled in the course of the same illness to call it mania, and perhaps, finally, to have to conclude that it is a case of alternating or circular insanity.

Again, there is a tendency so great as to be the rule among cases of either kind to recur. Certain individuals manifest repeated attacks of mania. It is impossible to consider these, coming as they do at intervals, varying with the person of from a few days to many years, as entirely unrelated. Others are subject in a similar manner to recurrent attacks of melancholia; but the regularity of these sequences is often broken by an attack of the opposite character. This occurs much oftener than one would suppose, until he reviews the histories of cases with this point in view, as frequently the atypical attacks, if they may be so called, are less severe or shorter in duration than those of the predominant form, and demand less active interference.

Nor does the usual classification of insanities separate in any way the cases of acute insanity that recover perfectly, to remain well or to return again and again, from those other cases which decline into an early mental failure; for it is a fact that while the first attack of mental disease is often followed by dementia, this outcome rarely follows recurrent attacks; and while after several relapses recovery may fail to be complete, a modified stage of the ordinary psychosis is present, and not profound dementia.

To avoid these very serious difficulties, Kraepelin has given us a new classification, based on the study of the life histories of individuals, rather than their emotional or intellectual condition at isolated periods of time. He finds that most of the acute insanities fall into one or the other of two groups: manic-depressive insanity in which the tendency is toward recovery, and dementia præcox in which the tendency is toward mental deterioration. A study of these two groups shows that each presents characteristics sufficient in most instances readily to permit a diagnosis to be made in the first attack; giving valuable prognostic information and indications for treatment.

Manic-depressive insanity appears in one of three forms: The manic which corresponds with attacks of pure mania;

the melancholic, corresponding with attacks of melancholia; and the mixed, with symptoms of each form. The name is, in some respects, unfortunate, for while it indicates that states of both mental exaltation and depression are likely to be present at some time in the individual's life, it seems to indicate also that this must be true, whereas cases occur in which only one phase has, perhaps in the course of many years, presented itself. In view of the name, these cases are confusing, until one clearly grasps the fact that the symptoms of the seemingly pure recurrent manias or melancholias are of the type we are soon to consider; and that, furthermore, in the course of repeated attacks, such a diagnosis as "recurrent mania" is often rendered untenable, and their group shown to be identical with manic-depressive insanity, by an outbreak of the opposite character. Case "B," quoted below, is of this kind.

No anatomical pathology has yet been found for the disease, and this is the weak point when we consider this group of symptoms, with its fairly distinct course and prognosis as a disease entity. However, in the absence of pathology to explain aberrations of the mind, the symptoms must be grouped in the most logical and coherent manner possible.

Several cases occurring in the same family are frequently noted. The first attack is, as a rule, ascribed to some strain, nervous shock, or to physical or mental overwork; but with its recurrence the attacks become evidently independent of external cause, and seem to bear a close relationship to the periodical, causeless mental exaltation and depression seen in many persons not in any way insane, and often men and women of superior attainments.

The manic form is characterized by: First, psychomotor excitement. The patient is restless, usually to the point of interfering with sleep. His great activity accomplishes little or nothing, because it is not actuated by any steady purpose, but is distracted this way and that by any chance occurrence in the environment which involuntarily diverts the attention. Much of the activity, too, as a rule, is diverted into the channels of expression. The second cardinal symptom is flight of ideas. Thought, instead of being steadily directed toward an end, is governed by loose chance associations; by similarities in the sound of words; by superficial resemblances between

objects, or by habitual channels of thought. This is the basic symptom of true mania, but may occur in any form of delirium. Speech is rapid, giving an appearance of unusually rapid ideation, but examination of what is said shows that the excessive production of words is only one phase of the pressure of activity, which leads the patient to utter immediately whatever comes, no matter how fortuitously, into his mind, or how remotely related to his previous thought; while the real intellectual processes are more or less retarded, and often almost in abeyance. The flight of ideas may vary in severity, from a slight distractability, with a tendency to wander from the subject at hand into by-paths or inconsequential details, to a total loss of control of the stream of thought, the expression of which is only loosely related words or broken phrases. Hallucinations are rare in this phase of the disease, though illusions are common. Struck by some slight resemblance, as a beard or a look, a total stranger is called, perhaps, the nickname of an old friend, or a flower bed or a turn in the road is sufficient to identify the hospital with some familiar place. Delusions are also very common. Patients boast of their wealth, strength or ability. Their claims are extravagant, and made in a happy, careless, expansive manner, or again they are poisoned or persecuted. These delusions do not remain fixed, but vary in their details, and not infrequently change entirely from day to day.

In the depressed forms the limitation of ideation seen in the excited forms becomes more prominent, until there is almost an entire lack of ideas, and a corresponding lack of physical activity, producing the characteristic retardation in speech and action. In all but the simplest and mildest cases, terrifying delusions and hallucinations occur. This mental state impairs comprehension of the environment according to its degree, and when severe, completely clouds consciousness, the little remaining activity of mind being given over to one or two terrifying ideas, which entirely occupy the attention. As the patient's attention cannot then be attracted to any external object, he is said to be in a stupor. Lastly, emotional depression is so uniformly and characteristically present as to give its name to the symptom group.

The mixed phases are less striking and very variable in their

manifestations, but are often, at least, transiently seen, and their theoretical importance in establishing what have heretofore been called melancholia and mania as stages of one and the same disease is great. In the older descriptions they are largely ignored. A portion only of the symptoms, agreeing with one or the other of the accepted types, were picked out for purposes of diagnosis; the patient being considered an atypical case.

The prognosis of individual attacks in this disorder is excellent. A few of the most severe cases die from exhaustion; a few pass almost directly from one into another phase of the disease. The remainder, it is said, about 95 per cent. of first attacks, recover. As yet, there is no way known to predict if there will be recurrent attacks. A few cases live many years and die without a new attack, while many others relapse in a few weeks or months, or after several years. The tendency to recurrence is strong. Relapses may be so frequent as to keep the patient, for practical purposes, continuously alienated. Recovered cases regain very fully their former mental powers, and are usually entirely well for a time; but some cases, after repeated attacks, while coherent and well oriented in the intervals, fail to regain the acme of their previous ability, and in occasional instances that seem to belong to this psychosis are even moderately deteriorated. This qualifiedly favorable prognosis is of great importance from the clinical standpoint, and, in the absence of a distinct pathology, justifies us in separating it from dementia præcox, also a mental disease of acute onset, which may present all the restlessness of mania or all the lowered emotional tone of melancholia, and which was for the most part formerly included under these heads, but characterized by the purposelessness of the excitement and by the causeless and unexplained character of the depression. There is in dementia præcox a tendency to senseless repetition, to habitual attitudes, mannerisms of speech and action, to a partially cataleptic state, to resistiveness or negativism, and to prolonged mutism, broken suddenly by noisy, but senseless, cries. Hallucinations and delusions are commonly present, and of an absurdly impossible character. In most instances, as its name indicates, it leads directly to mental deterioration, varying in degree from a mild mental failure, with slight change in the

patient's manner, to a total loss of all but the vegetative functions of the nervous-system.

Manic-depressive insanity is also to be differentiated from the involutional forms of melancholia. These are characterized by the anxiousness and restlessness of the depression, and by the age of onset, though by no means all of the melancholias of the second half of life are of this character.

The following cases will illustrate some features of its course. All have been under observation several years, and are chosen from a large number of typical cases.

Patient "A" was first admitted to the Middletown State Homœopathic Hospital in September, 1875, when he was 13 years of age. He had fallen from his sled the previous winter and struck on his head, but was not unconscious. During his stay he acknowledged masturbation of two years' duration. No other possible causes for the attack were known. Heredity was denied. For three or four months his parents had noticed a change in him, but it was not great, until, three days before admission, he attended a camp-meeting, where the excitement of the crowd completely crazed him. He thought he was to be murdered by burglars and that his food was poisoned, and he called upon the police for protection. He was diagnosed "mania acute," for although the notes refer to his extreme fear and his crying, they also speak of excitement at the same time, and later of his mischievousness. (Just this condition shows the inadequacy of "mania" and "melancholia" as diagnostic terms.) After about four months he was discharged "recovered" and sent to a military school.

During the ensuing years the family suffered reverses, and, though it appears that he was not an unusual success as a business man, he held fair positions, and was considered entirely sane and of moderate capacity. He married, became the father of children, and all went well for nearly twenty years, until, in 1894, he was readmitted, aged 32. This attack came on gradually, and no cause but worry was assigned. He was restless and noisy, talked incoherently, religion and obscenity mixed, and slept poorly. He was violent and destructive, and the delusion that God had given him power to call up the spirits of the dead is mentioned in his history. In two weeks he regained his self-control, but was described as nervous and

emotional, and remained in the hospital three and one-half months, when, after thirty days' trial at home, he was again discharged "recovered."

Before returning here he, at the beginning of another maniacal outbreak, shot a man, but did not seriously wound him. He was sent to the Matteawan State Hospital for Insane Criminals, and went through an active attack of mania. He says he was not depressed after this illness.

In April, 1900, he came back to Middletown suffering with a typical maniacal attack. He talked constantly, running on from subject to subject; was elated, restless and destructive; yet two days later he was crying, apparently from anger. This was merely one aspect of the emotional instability, and did not last long; for the same evening it is noted that he was more maniacal than ever. He slept poorly; was restless; expressed extravagant desires; talked noisily, incoherently, and with flight of ideas. For six months he was threatening and overbearing, mischievous and destructive, and emotionally exalted. When apparently recovered he was, in December, sent home on trial, but in a week returned, saying he was nervous and sleepless there, and, fearing a relapse, came back. For some days following his return he was decidedly depressed. Again, in March and May, as he appeared well while subject to the quiet routine and freedom from excitement of hospital life, he went home, but returned with the same complaint of loss of sleep, nervousness, and depression. Two weeks after his last unsuccessful attempt to live at home, having a parole of the grounds, he went away one afternoon without permission, returning after dark, wet to the skin. He had made an effort to drown himself, and during the ensuing week was in bed, greatly depressed; he answered questions slowly; appeared to think with difficulty; scarcely moved at all, and was confused as to what had happened in the hours he was away from the hospital—all the characteristic symptoms of the depressed form of his insanity, or as it is more often called, melancholia acute. He remained somewhat depressed and sluggish during most of the summer. In October it is noted that he is quite cheerful and industrious, and after thirty days' parole he was, in November, 1901, discharged "recovered." He worked steadily while at home, but returned after four months saying he could not stand the noises

at the machine-shop, and that he had worried about the support of his wife and children. He improved slowly, but did not become as active or as industrious as formerly. Questions were answered rather incompletely and after a pause, though the answers themselves came in a short, jerky manner. Half of his moustache he kept picked out without satisfactory reason, and his torpor produced an appearance of slight dementia. By July he had improved decidedly and was, at the urgent solicitation of his friends, paroled home again, because of the need of his family in the absence of their bread-winner. He remained there but three days and came back alone with his old complaint of nervousness. He seemed much as before he went away, but the next morning he suddenly thrust his head through a mirror; cut himself superficially on each wrist, with broken glass, and struggled desperately with those who interfered to prevent further self-injury. He was then very quiet, retarded and depressed, with headache, as if the top of his head would fly off, for three days; then gradually became maniacal. He tore up his bed or bits of paper and scattered the pieces; he held fast to the spoon with his teeth when given his medicine; did not answer when spoken to, or replied with a nod, and looked as though laboring under suppressed excitement. Six days after this desperate suicidal attempt, he is noted as being "restless this morning and decidedly incoherent. Jumps from subject to subject and is extravagant in gesture." He then passed through a maniacal attack of about five months' duration; quieted down gradually; and at present exercises good self-control, is pleasant and gentlemanly, and has at his command the powers of his mind. Perhaps, since his last recovery, if it may be so called, for he remains at the hospital, because it is believed that a relapse may easily be precipitated, he has been less ambitious and a little less efficient, but the change is not great, if it is really present at all. It will be seen that this patient has had five separate maniacal outbreaks; that at various times he has been depressed, fearful and suicidal, and that now after attacks of insanity, covering at intervals, almost thirty years, he is in good mental condition, though little able to bear the strain of active life and almost sure to suffer further relapses. Attacks appear to recur, nearly or quite independently of adequate external cause, though it is noticed that excite-

ment, brain work, or mental or emotional strain is likely to precipitate a recurrence.*

The next cause, if diagnosed according to the plan usually adopted by writers in English, would be called "acute mania" during the first four outbreaks of his mental disease, then "acute melancholia," and perhaps, finally, "alternating insanity," yet it is evidently the same psychosis that, at intervals, has been present during the past five years.

Patient "B" came to Middletown first in April, 1901, suffering with his third attack of insanity. He had had an excellent position in a wholesale drygoods house; enjoyed a good salary and was a successful man. He resigned to go into business for himself, but did not make a success of it. This was assigned as the cause of his first attack. Subsequent attacks came without apparent cause. When he came to Middletown he was suffering with a noisy, restless, destructive mania, with eroticism; illy-considered plans for making vast wealth; and with delusions that he was acted upon by electricity. He showed the goodness of his heart by offering positions in his numerous enterprises to all around him at generous salaries, and gave away money in \$25,000 lots. This attack was said to be similar to its predecessors, and subsequent maniacal periods have followed the same type. In six weeks he was quiet, but unstable, and retained some of his delusions. Three months after admission he remembered these delusions, but recognized their morbid origin. He was slightly depressed: it was ascribed to the unsatisfactory condition of his affairs. Two months later he was discharged "recovered." His recovery lasted only two and one-half months, and he was recommitted in November; was maniacal until about February 1, 1902, then quiet and rational for a month, when after a visit from his wife his first melancholic attack began. He told of the sins he had committed, the punishment he must undergo, and made an unprovoked attack on a fellow patient, because he thought this man had done harm, not to himself, but to others. He said he was "no good," was suicidal and would not drink his milk, because it did *not* contain poison. His wife he thought was in the

* Since the above was written this man has made another unsuccessful effort to live at home.

building, and was about to die. Most of the time he sat about or laid in his bed in a dejected manner, but at one time he became for a short period restless and noisy at night. His melancholic attack lasted only about a month. He then went to a quiet convalescent ward and remained there in good mental and physical condition some five months, until his fifth excited period began. Three and a half months later he could return to his quiet ward, where after a month and a half he began to be depressed again, and one night tried to choke his roommate. A few days later, he said one morning that the night before it seemed as if there was a fire in his room or a battle going on about him and that he might be lost. Also that his heart was diseased. At this time he was in a confused dreamy state, common in the severer phases of the melancholic forms of this psychosis, and his statements were not definite. The same afternoon he attacked an inoffensive patient, saying that he was murdered, a minute later that he had attempted murder and deserved hell. This illustrates the pressure of activity in this form of mental disease with depression, one of the connecting links between it and the so-called mania.

This patient then became greatly retarded, spoke to no one unless addressed, and could not concentrate his thoughts to read his daily paper, of which he is very fond, or to write a letter to his wife, though he made the attempt. In April, three months later, he was again in normal mental condition, but in two months relapsed into a maniacal attack, which still continues.

The next case is one of the predominantly depressed type. When a young man he had a short attack of depression which, in his last attack, he spoke of as feigned. He made it one of the principal errors of his past and deeply lamented it as a sin. He came to the Middletown State Homœopathic Hospital first, aged 45, with a sharp melancholic attack, and recovered in six months. Nearly nine years later, having been considered well in the meantime, he returned and passed through a much more severe attack, being depressed, retarded and tortured by ideas he could not drive away from his brain for two and a half years. After his first discharge he was not considered insane, but was part of the time overactive, busy with many things, and indulged, with great spirit, in a church controversy, which

resulted in severing his connection with the congregation. Again, following the severe attack, he passed gradually from a condition of mental and physical depression, with impaired digestion and nutrition, bodily inactivity, and retarded and limited thought, to a condition wherein he felt more fit than ever before in his life, with unbounded faith in his ability to succeed at whatever he undertook, and plans for bettering all enterprises that attracted his attention. He remained able to talk coherently and clearly on any topic introduced, but was verbose, and his judgment and insight were slightly impaired. He is now engaged in business, and reports himself as doing very well.

This case well illustrates the mild character that one phase or other of the psychosis sometimes presents. After his first discharge no one thought of considering him insane, nor is he so considered now, for while he is mentally different from himself in his normal years, he enjoys the blessings of liberty and good physical health, and perhaps feels more keenly the pleasures of life, finds them in more places, and is less disturbed by its petty failures and worries than when the alienist would pronounce him in health. On the other hand, his overactivity has previously led him into errors that have greatly disturbed his peace of mind, and exposes him constantly to unwise business ventures, extravagances and the wiles of any scheming rogue who may find it worth his while to profit by his unbounded optimism.

Many cases of "puerperal insanity" belong to this psychosis, as shown by the type of symptoms they present, by the tendency to recurrence with successive pregnancies, and often by continued attacks after childbearing ceases. The next case illustrates the latter condition.

Case "D" was admitted in July, 1880. Four months previously, about ten days after the birth of her first and only child, "she became wild, singing, restless and uneasy." She was admitted to the hospital in a mixed state of mania and melancholia. She was confused, seemed unable to collect her thoughts, mistook people about her, thought her food was poisoned, yet was restless and good-natured. In six days she was perfectly clear in mind, but in twelve days more she relapsed. With the exception of a few months she has been, since 1880,

a constant resident of some institution for the insane, and has never been considered well enough, because of her frequent relapses, to be discharged as a recovery. At first, she had short alternating periods of excitement, and what her history calls a "dull, stupid, foolish" condition, in which she would not feed herself. As the years have passed away, she has developed into a fairly typical circular insanity, the cycle of about two years' duration, with the maniacal phase predominating. Now, after more than twenty years, much of the time most violently and distressingly insane, she has times at her best, when she is a pleasant and intelligent woman.

The treatment of manic-depressive insanity should rarely be attempted at home. The excited forms are destructive, at times dangerous, when within reach of knives, weapons, etc., and so boisterous as to attract an unfavorable degree of attention. The depressed forms are more amenable to treatment if well-trained nurses are at hand, experienced in the management of cases of this character, but the danger of suicide is constantly present and difficult to guard against adequately in the patient's own home. As a rule, some public or private institution, especially equipped for the care of mental maladies, should be chosen, where the patient gains by isolation from his family and friends, and the latter are spared a too great familiarity with him in a state which can be only painful to them.

As to the actual management of the case, each year shows a wider appreciation of the value of rest in bed, for so long vigorously advocated by the late Dr. Selden H. Talcott. This course is now widely adopted in Europe, and the leading hospitals for the insane in this country are using it more and more. Maniacal cases become more quiet and conserve their strength, are less likely to injure themselves or others, and the severe manifestations are quicker controlled. Disturbed cases often require constant watching or some form of mechanical restraint to keep them in bed for a short time, but usually soon become quieter, and remain in bed without further difficulty. Mechanical means, if used, must be under constant supervision; must be removed for bathing, etc., and discarded as soon as improvement or any sign of exhaustion appears. The cold, wet pack is one of the best means of at once keeping a patient in bed and making him desire to stay there. It diminishes

restlessness, and is useful in combating any tendency to fever as the result of excessive activity.

Depressed cases, as a rule, gladly accept an opportunity for quiet and rest. Activity is distasteful or even positively painful; their ability to think being so greatly diminished, they can cope with no complicated situation, and they seek the bed as a refuge, if given an opportunity. Massage is useful while in bed, also stimulating baths, and as improvement appears the rest should be broken by moderate exercise in the open air, followed by a return to the bed.

The nutritive condition must be carefully watched. The overactive patient burns up a great deal of food, and, as a rule, can take large amounts of bread, milk, meat and eggs. Eggs, especially, are recommended by many, and should be used, especially if the assimilative powers are weak. Hot milk, besides being a food, acts as a sedative, and bread and milk is easily given and furnishes a well-balanced ration. Much tact is required to induce patients to take sufficient food, because either of extreme excitement or delusions of poisoning or unworthiness.

The homœopathic treatment of the mental states comprised under this title has been accompanied by a gratifying degree of success. In this disease the most sudden and extreme fluctuations occur, the patient is glad or angry, optimistic or hopeless; delusions come and go, irrespective of the medicine, and not all improvement can be attributed to this source, and considerable time is required for recovery; but many cases are seen to improve and ultimately become well under such remedies as belladonna, hyoseyamus, stramonium, veratrum album, aconite and cannabis indica, in the expansive forms; arsenicum, nux vomica, ignatia, pulsatilla and cimicifuga in conditions of depression.

Persons who have suffered from this psychosis should so order their lives as to live moderately in every particular. Great success is improbable, and its possible rewards are not an adequate compensation for reason lost in its pursuit. Employment should be steady, free from great responsibility, or strain from any other source, and not unduly fatiguing. Excitement of all kinds is to be shunned. Alcoholic indulgence is especially unfavorable, and total abstinence should be urged.

As to marriage, one can never conscientiously advise it. Recurrence may be precipitated by such a step; there is no evidence that matrimony, apart from regular habits, is of any value in maintaining the mental equilibrium; and one is not justified in incurring the strong hereditary predisposition to insanity on the part of the offspring.

DIGITALIS IN HEART AFFECTIONS.

BY EDWARD R. SNADER, M.D., PHILADELPHIA, PA.

It may seem like carrying coals to Newcastle to attempt to say anything about digitalis and its effects in heart disease. This is an error, however. We can still add to and take away from digitalis. While more experimentation, and more discussion, has taken place in connection with the effect of digitalis upon the cardiac apparatus than has been the case with any one single remedy in the whole range of cardiac drugs, the half has not yet been told, and it will doubtless be many a day before we have an *exact* working knowledge of the drug. All the experimentation into its so-called physiological action has led, not exactly to confusion worse confounded, but to a collection of apparent facts that are extremely contradictory, and to so much logical reasoning from illogical bases, that, even at this late day, we have only a patchwork schema of the supposed effects of this unquestionably powerful drug—a Joseph-coated garment, very pretty to look at, but with many of rents in its many-hued theoretical structure that need mending by more experimentation and more clinical experience, conducted on more exact lines than heretofore. A consideration of digitalis, therefore, is in order, and will be in order until we are as well acquainted with its action as we are with the multiplication table. As matter of fact, a drug that furnishes more triumphs in cardiac therapeutics than any other five drugs that are generally used for heart affections, makes any attempt to define the action and render more effective, therefore, the administration of the drug, welcome, even if the attempt be a poor one, and written altogether from a clinical standpoint.

That digitalis has a powerful effect upon the cardiac apparatus is shown by the facts that may at least tentatively be assumed to be correct, namely, that the drug prolongs the diastole of the heart, energizes the systolic contraction, stimulates the cardiac inhibitory nerves, acts upon the intracardiac ganglia, powerfully upon the heart muscle itself, slows the pulse-rate and raises the arterial pressure. Whether the rise of arterial pressure is dependent upon the action of the drug upon the muscle itself directly, or through the intervention of the vasomotor centres, is a moot point, and, while we may be deeply concerned as to a proper solution of this vexed question, as clinicians we are most interested in the practical fact that the arterial tension is increased more than we are in the manner and mechanism of that increase. The prolongation of the diastolic period of the heart's revolution, the increase in the power of the contraction, and the marked rise in arterial tension, are the features of the drug that stand out prominently as the characteristics of this nonpareil among heart remedies. With all this knowledge, however, we may truly be said to have only a hand-shaking acquaintanceship with digitalis. We are not in a heart-to-heart state of familiarity with digitalis as a drug. Like other drug individualities, it has therapeutic hands and feet, and eyes, and nose, and mouth, and, therefore, in some aspects, looks like other cardiac medicines, its peculiar distinguishing feature seeming to be the increase of arterial tension and the energizing of the systole; and, in these two particulars, it is far and away ahead of other drugs that have in general the same action, but in a more feeble way. Still, digitalis has not told us all about itself at that.

Upon the facts that digitalis prolongs the diastole, increases systolic force and raises arterial tension, and contracts the blood-vessels, depends most of its virtue as a cardiac drug; and, alas! nearly all its ill-effects, too. Herein lies its power for both good and ill in cardiac therapeutics.

Upon its ability to contract the arteries is dependent its power to remove the congestions of lung, the œdemas of the brain, to stop hæmorrhages, to relieve congestions everywhere, and to open the flood-gates of the kidneys when dropsy, due to incompetency of the heart muscle, is present, and to carry the nutrient blood-stream through the capillary bloodvessels to

every organ in the body crying out for blood to the weakened heart; and, perhaps greatest of all, so far as the heart muscle itself is concerned, squeezes out the venous blood in the walls of the heart and forces in nutrient arterial blood through the coronaries; and thus is the heart revived and often enabled to successfully take up its burden as a mechanical pump and a vital organ once more; helps it once more to send its crimson blessing, its baptism of blood, to every vassal cell in the heart's great empire, the human body.

Yet this very virtue of the drug is the worst enemy of its good. It is by reason of this quality especially, but not exclusively, the power to act on involuntary muscular fibres in the arteries and arterioles, that we get those sad ill-effects of the drug that lead to such dire heart wreck. Pushed too far, the drug tetanizes the bloodvessels, contracts them until the blood cannot pass through them, increases the work of the heart ten-fold, loads the veins with impure blood, starves every cell, and finally cramps out of the heart-walls, and the cavities of the heart itself, every drop of blood, and leaves it blanched and white in an eternal systole, cramped, tetanized, galvanized to death. This is no fancy picture. It has occurred, and it will occur again and again, where the use of the drug is not understood, and where the dosage is illy-adapted to the case in hand.

Here, then, is the zenith and the nadir, the epitomized epitome, if you please, of the drug digitalis. Note that it is Janus-faced. Translate this, if you will, into the primary and secondary action, into the two extreme swings of the pendulum of drug-effects, or call these visible two-end manifestations the seeable concaves of a complete circle of drug-power, the intermediate potentialities of which are as yet to us an unknown quantity. Take a glance at the variety of opinions as to the drug's exact method of action from the standpoint of the small army of experimenters, a sidelong look at the views of its effects therapeutically and the manner in which its results are achieved. and then at the mass of undigested clinical experience, and a peep into your own personal uses of the medicine and your imperfect indications for its employment, and you will, I feel assured, agree with me that it is very like reading the Holy Writ, and selecting a particular passage and founding your belief upon it. That is the best you can do, and you will find

plenty of apparent evidence to back up any particular view you feel inclined to adopt, and plenty to keep you company.

But, standing out above every other supposed fact is the thousand-times proven one that digitalis, known fully or not, is the most powerful drug in the whole medical armamentarium in heart diseases taken as a class, and the *sine qua non* in certain kinds of heart disease.

Practically, then, we are of necessity most concerned at present in knowing: When to give it, when not to give it, how much to give, and under what circumstances, and when to stop it.

You give digitalis when the heart muscle is weakened and unable to meet the demands upon it, when the heart is dilated, provided the heart muscle is not at the same time it is weakened, is not too much degenerated; when, in other words, the heart has failed as a pump. This is the keynote. There are still other signs and symptoms for its employment, but this is the cardinal one. It is most useful in simple heart weakness, in simple dilatation, next in ventricular dilatation secondary to lesions at the mitral valve, very rarely in aortic disease; in functional heart disease, when the heart is weak; in all forms of irregularity, notably those characterized by non-synchronous contraction of the ventricles, organic or functional, provided the heart's contractions are weaker than normal; in collapse; in dropsies anywhere of cardiac origin; and in all the multitudinous conditions and symptoms dependent upon venous congestion, due to deficient muscular power in the heart, whether they arise in the brain, the lungs, the walls of the heart itself, the pericardial sac, the pleural cavity, the organs of the abdomen, or of the lower extremities. Digitalis causes irregularity, rapidity and weakness of heart action, and so does other drugs. It is assumed, therefore, that it is necessary to differentiate the form of heart weakness that requires digitalis as its remedy.

The contraindications are important. It is seldom of use where the heart muscle is seriously degenerated, and it is, therefore, unless handled with exquisite skill, a dangerous drug in myocarditis, acute or chronic, in fatty degeneration, in aneurism, in atheroma and arteriosclerosis, whether the arterial change has its origin in chronic interstitial nephritis, in gout, syphilis or slow autotoxæmia. We do not want the drug in fatty degeneration, for we fear the degenerated fibres will

not stand the strain of increased systolic contraction; nor in aneurism, for we believe the increased tension will rupture the thin-walled coats; nor in atheroma, because we might rupture the calcareous arteries and cause an apoplexy; and in arteriosclerosis, because we argue that the tension is already high enough, and that digitalis would only increase the evil. We do not want it in aortic regurgitation, because, if we prolong the diastole, we increase the quantity of blood that flows back into the left ventricle owing to the imperfect closure of the aortic valve, and we are thus only doubly increasing the work of the left ventricle and courting further dilatation. These are the salient contraindications for the employment of digitalis. However, it must be said that, exceptionally, small doses of the drug in anyone of these diseases and conditions is sometimes of service, but the effects must be watched with extreme care, or it must be the last resort. The fact that the drug apparently works when contraindicated is only further evidence that we do not yet understand all about the action of the drug. Certain it is that it has been occasionally, but signally, useful in the arteriosclerosis of chronic interstitial nephritis, possibly because thickened arteries do not necessarily mean high arterial tension, and because the toning up of the remaining active fibres of the arterial coat assists in carrying on the circulation better than before the administration of the drug.

So, in chronic myocarditis, with secondary dilatation, it may act by toning up the unaffected fibres, removing the irregularity of contraction and remedying the accompanying dilatation; and so, too, in fatty degeneration, it causes the fibres of the heart-walls not yet totally gone to vicariously assume the work of the diseased fibres, and by increasing the nutrition of the heart-walls through the increased force of the stream passing through the coronaries, thereby improves the nutrition of the heart. In these fatty hearts all the fibres are not equally degenerated, or the patient would have no heart for any drug to act upon.

In aortic regurgitation, too, if its effects be modified by the addition of a vaso-dilator, it may be made to so cramp the left ventricle that its cavity is actually rendered smaller, and so less blood escapes back into it after the systole is completed. Ordinarily, it would, while increasing the energy of the systole

on the one hand, and heightening the arterial tension on the other, be simply working the heart at both ends of the circulatory apparatus, and the heart would necessarily give out. It is this working at both ends that wears the heart out, when digitalis is the causative factor of further heart weakness after its administration.

Digitalis is a complex drug, with many alkaloids, and some of these alkaloids are antagonistic to each other, and as you cannot know whether the antagonistic or synergistic alkaloid is dominant before you administer a given preparation of the drug, the element or alkaloid that tends most to produce and increase the blood-pressure may predominate over the element that physiologically energizes the systole, and, therefore, the tension in the arteries does not balance the increased work of the left ventricle, and the over-increase in tension increases the work of the ventricle, and ultimately, if the drug be not withdrawn, induces death in systole. But, whether in most instances, the increase in power of the systole and the rise in arterial tension are poised exactly or not, certain it is that I have seen an artery rendered as stiff as wire and as unyielding, except for the heart's pulsations, and have found the first sound of the heart disproportionately weak, and, on the other hand, I have found the first sound of the heart unusually strong and booming, with a low arterial tension, under the drug. It is the little points about the drug and its effects that makes it so necessary to have your weather eye on it all the time. You can't put digitalis into a therapeutic atomizer and spray and shower it over your patient indiscriminately, simply because it is a great drug. It is a great drug, but it is great because it has the power of acting powerfully, for either good or ill, and if it did not have the power to impress the cells deeply and lethally it would have little power to affect them favorably.

What are the indications for the administration of digitalis in a given case of heart disease? Irregularity of action, rapidity of rate, low tension of the pulse, and relative weakness of the first sound of the heart. Symptomatically, there may or not be present, when digitalis is called for, shortness of breath, worse from exertion and at night, blue lips, paroxysmal oppression in the chest, œdema of the feet, great bodily weakness.

In irregularity and weakness of the heart you have present the cardinal indications. *Digitalis* is seldom of use unless there be some irregularity of rhythm. It has scored its greatest triumphs in that kind of cardiac disturbance I call the "crazy heart," where the organ is acting with great tumultuousness, and the first and second sounds are so inextricably intermingled that the cardiac action has lost all semblance of ordinary revolutions, a condition frequently associated with grave organic disease, but which is sometimes simply a functional disorder.

Well, we know now when to give the drug, and the question naturally arises, How shall we give it? It can be given in fluid extract, tincture, infusion, decoction, or in the form of the powdered leaf, or, in abstractum. I shall have nothing to say at this time concerning the several alkaloids and their uses. We are just studying their different actions, and are learning much that will prove useful, and possibly we may in the future find that some of these alkaloids are still greater weapons in the fighting of cardiac weakness than the whole drug; but until that time has appeared, when we get into a bad case that requires *digitalis*, we will not experiment with the alkaloids until our old and tried friend, the whole drug, has failed. I do, however, administer the alkaloids; but not when I am handling a serious case. I want to know all about a drug that I use under those circumstances, and have then no time to scan every kick of a new medicament. Different medical men have preference for special preparations of the drug, and they should continue to use them, for if they know what a certain preparation will do and what it will not, they can handle that particular preparation much better and get more out of it therapeutically than they could with another man's favorite preparation. Individually, I like the tincture, and, that failing, the crude leaf. When we give this drug we are after results; but what kind of results? It will not do to say, broadly, why, to cure the case, of course. That is obvious. The real answer is, by what particular modification or combination of modifications in the action of the heart do you expect to produce results by the administration of the drug? Do you expect to secure the result by removing the irregularity, by increasing the power of the ventricles, by slowing the action of the heart, by increasing the tension of the arteries, or do you want to fulfill all these re-

quirements in a given case? Do you simply want to remove a dropsy? You will not do it, unless it is specifically a cardiac dropsy, for digitalis is not a diuretic except where a weak heart is at the back of the dropsical accumulation. Now, if you know just exactly what you want the drug to do, you will watch every one of these points and determine whether the drug is or is not doing what you intended it to do. Its administration then requires an exact diagnosis of the heart's condition as a pump and as a vital organ. Having decided that there is room for digitalis in a given case, the question of dose at once arises. Practically the dose varies from the lower potencies up to a grain of the leaf. You can never determine ahead of time what particular dose will be needed. The smallest dose may be thirty drops of the tincture, or two drops of the same. That is where your work comes in, to decide whether the drug is doing with the dose you have given what you have a right to expect it to do, from your conception of the field of its action and from your own experience. There is absolutely no exact dosage to digitalis. The question all hinges upon what you want to do, what you have a reasonable right to expect the drug to do, and the individual susceptibilities of the patient. Except when you administer the drug in cases of great collapse, when a big dose, according to the ordinary official standard, may be given, you want to commence with small doses, and, if they do not give you what you are after, gradually increase to any dosage until you are satisfied with the result, or you are convinced that the medicine has been improperly chosen for the particular case in point. This is the only rational dosage of digitalis. All the while, however, in this ascending dosage, you are on the watch for overaction on the part of the drug. Digitalis is too often continued when it should be stopped, and too often stopped when it should be continued. Watch particularly for an undue increase in the tension of the pulse. If the case is otherwise doing well, it may not be necessary to cease the administration because this factor has appeared. Perhaps the good effects may be made to continue while you are modifying this particular feature of the drug's over or undesirable action by the coadministration of a vasodilator. Don't apologize for this departure from the single remedy. Single remedies have their limitations. They can

often be added to or taken away from with advantage. If one horse is pulling your therapeutic load fairly well, but is kicking over the traces, put a kicking-strap on him, and if necessary put a yoke-mate with him to pull the load.

Remember, it is not necessary to tetanize an artery to get the good effects of digitalis on the circulation. As I pointed out before, this is one of the drug's best as well as worst features, and the one that gives it its greatest individuality. There is such a thing as having so much of this tension that it defeats all the other ends you intend compassing by your drug. In addition to too great increase in tension, which starves and does not nourish, the tissues, not only of the heart, but the rest of the body, you will be on the lookout for dicrotism in the pulse, and you will either then cease the administration or modify the tension by another medicine, or reduce the dose of the original drug, for this dicrotism may possibly mean too much arterial tension, too great force of the systole, or, more probably, an abortive contraction of only a part of the left ventricle, which is held in partial spasm by too great dosage of the drug. In other words, only part of the left ventricle contracts, the other being in spasm; and then, with the cessation of the main motion of the ventricle, the spasm partially relaxes and the abortive attempt at systole is made by the part of the ventricle that was held in the cramping clasp of the drug. The occurrence of irregularity, after the irregularity that led you to give the drug has disappeared, but has now come again upon the scene, must be regarded as an evidence of too much digitalis. Too much boom to the first sound, the heart acting as if it were enormously hypertrophied, shows overaction of the drug, although there are times when you want just such a first sound. If the pulse-rate becomes rapid when the patient moves, you have given too much. Of course, if the drug is giving rise to toxicity, you will have the slow pulse give way to a rapid one, the high tension to a low one, and regularity to irregularity, and a weak first sound and all the circulatory symptoms that accompany weak heart.

Ordinarily, the points you watch for (because the other ones, the later ones, are so obvious) are too great boom to the first sound, too great tension in the arteries, dicrotism and irregularity. The symptoms that accompany the maladministration

are varied, but the most constant are nausea, weakness, fear to move because of a feeling of impending dissolution, blueness of the sclerotics and grass-green vomit. These are toxic symptoms that may end in convulsions, coma, and rather slow death, or in sudden fatal syncope, with the heart cramped in systole.

When you have secured exactly the results you want from the administration of the drug, and have the tune set you want your drug to play on the heart-harp and its myriad strings, let it play a little while, watching that not a single string gets too loose or too tight, and then gradually put your pianissimo touch on. Gradually withdraw the digitalis, always, however, maintaining your good effects and your rhythmycal action. There must be no falsetto notes. Maintain the action with the smallest possible dose, and you may thus be able to continue the administration of the drug for a long period of time with only benefit to your patient. Too much is more than enough. It is simply worse than bad judgment to not watch all the time the action of a drug like digitalis. It is no push-the-button-and-I'll-do-the-rest medicine. It needs as much tinkering and manipulating as that "splendid" automobile of yours. It runs beautifully for awhile, but, my —. That this drug produces toxic symptoms nobody denies; but there are distinguished teachers in medicine who seem to deny that there is any such thing as a cumulative action in digitalis. I must differ with these gentlemen. I have seen this effect too often, seen patients in collapse, with terrible weakness, green vomit, suppression of urine, pallid face, and awful anxiety, whose hearts sounded like bags of mush trying irregularly to boil over in a toneless systole, not to know that the drug digitalis is capable of accumulating and giving rise to these serious symptoms or to sudden death. In one of these cases I was able to get a fairly good heart again. That mush-bag heart was certainly not the result of the disease that led to the administration of the digitalis, for the lesion remained after I had been able to secure good heart action. Some of the gentlemen who do not believe in the cumulative action administer the drug in full doses until the patient dies suddenly, and then claim that the death was due to the original lesion (or its secondary dilatation) for which the digitalis was prescribed, and that there was no heart left to respond to the drug further. The

drug was given until sudden death ensued, and the cause of death was assumed to be the underlying lesion and the impossibility of responding further to drugs. But, some of these sudden deaths occurred in people who were taking digitalis for left-sided heart lesions, notably those of the mitral valve, and these cases do not, as a rule, die suddenly, unless as the result of some one of the accidents that can occur in the course of any of the heart maladies. It is fair to assume that some of these deaths, at least, were not due to the lesion, but to the cumulative action of digitalis, the heart surrendering suddenly in systole. Some of these gentlemen, too, let these patients, with hearts tetanized with digitalis, walk about, and to their death. This brings me to say that it is very seldom wise to administer digitalis in anything like fair dosage, unless that patient be at as complete rest in bed as possible.

The best results are then secured and the worst ones often avoided. So far as the posology of digitalis is concerned, rest is the first factor; gradually ascending dosage, gradually diminishing dosage, and the avoidance of a sudden stoppage of the drug, are the important points.

Sudden stoppage of the drug after it has been given for some time is an extremely dangerous procedure, and I have seen more toxic symptoms from digitalis, from this factor, than I have seen from direct administration, provided there were decent precautions taken. If the drug has proven unsuitable, do not cease its administration at once and abruptly. Take two or three days, or two weeks, if necessary. Remember you have been lashing that heart, in all probability, and you do not want it to feel altogether without some kind of help in its distress. Administer, meanwhile, the other drug that you have chosen to supersede the digitalis. This most used, and most abused, drug fails often. It fails sometimes because the preparation used is inert; because the dose was too large; because it was too small; because it was not indicated; because of the individual idiosyncrasy to its effects; because its action was not properly interpreted; because it was stopped too soon; and because it is usually prescribed in cases that are at best unfavorable in prognosis and may not be amenable to any kind of drug-treatment. In administering it, then, do not expect too much. While it is a quick-acting remedy, it may be three or four days before you

can note favorable effects. Do not expect to cure over night a condition that has been months in establishing itself.

Whether the action of digitalis as a heart remedy is according to simile or according to contrari, I shall not take the time to discuss. I am less concerned as to how the results are produced than I am with the fact that they are produced. It acts; that is enough for me as a practical physician. I shall welcome any light, however, on the subject. Personally, if I may take the time to express one view, I believe that the action of digitalis is an exquisite example of the action of simile, no matter whether the primary or secondary conditions be chosen as the guide for the selection of the remedy. Selecting the drug according to the conditions it induces, you can take it either of the ends or in the middle, and, watching your effects, produce results.

I may say that, when the indications are present calling for the drug, I do not always employ it. I do not like to drive a tack with a sledge-hammer always. That is knocking smithereens out of the eternal fitness of things. There are other drugs that are good for "what ails" the heart besides digitalis. So powerful a weapon I like to hold in reserve. If the skirmishers are wounded and knocked out, then I send forward my Hannibal of cardiac drugs, digitalis.

There are many other drugs that are useful in cardiac therapeutics, and a differentiation is always an essential at the bedside. The alkaloids, too, require consideration, but they and the other drugs are, as Kipling would say, another story.

POTASSIUM PERMANGANATE IN DYSMENORRŒA.—Dr. Khoury has investigated the action of potassium permanganate internally in dysmenorrhœa, and finds that the accepted action of the drug is sustained by his experimental observations. The pains are lessened or removed in every case, and the flow in scanty menstruation was generally increased. The doses of permanganate varied from 5 to 30 centigrammes, given in pill form, and the action is described as a double one—due in part to the manganese itself playing in the rôle of iron a direct action on the structure and biology of the corpuscles, and, secondly, to the compound, permanganate of potash, with its oxidizing powers modifying the nutritional changes within the body. The drug was well tolerated by the stomach and caused no disturbance of the bowels.—*L'Art Medical*, from the *Journal des Praticiens*.

THE INFLUENCE OF TRAUMATISM OF THE CHEST-WALL IN THE DEVELOPMENT OF PHTHISIS PULMONALIS.

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WE, as practitioners, have been accustomed to associate tubercular lesions wherever found, except those perhaps of the lung, with traumatism.

If this is not pointed out by the patient, the question will always be asked concerning it; but does it often occur to us when examining a case of tubercular lung disease that a blow, or a kick, may have been the starting, or exciting, cause of the whole disease? That there could be a positive relationship has been hinted at before, verified by good observers, and an attempt will be made to show such relationship in the cases about to be cited. That this later statement may be called into question is to be expected, but if this can be considered as a plea for surgical aid to some cases of lung disease diagnosed as tubercular, and are being overlooked because of the failure to bring out in the examination a history of traumatism, then will it have accomplished its purpose. It is not the intention to add new thoughts, but to call attention to a certain class of cases essentially tubercular, dependent on trauma of the chest-wall, which require the surgeon's aid, and under surgical treatment improve, and in some instances recover, by the prompt intervention.

As to injuries to the chest in general, they may be "*superficial*" or "*deep-seated*," but in either case there is resulting soreness and contusion of the chest-wall, inflammation within the lung, pleuritis and resulting effusions, abscess of the lung, caries of the ribs and other lesions. There is also more or less limitation of motion in the affected side, not only on account of the bruised chest-wall, but also on account of an inflamed pleura. (The characteristic position of the chest in ordinary pleurisy is familiar to all.) Not alone does the pleura suffer in this inflammation, but also the lung, and a deep-seated abscess may result. With a pleurisy there is a serous inflammation and a throwing out of an exudate, with the for-

mation of tight and firm adhesions, binding the lung down and giving rise to what may be termed, if you please, "a dead space in the lung"—*i.e.*, a portion of the lung walled off by inflammatory exudate with its expansibility disturbed, its contractility and, possibly, its circulation interfered with. This term is one of the author's own suggestion, and it seems to convey very well the idea intended. These portions of the lung may be termed "inactive respiratory localities or areas."

This explanation will perhaps suffice for superficial cases, but the question arises, is it possible for an undiscoverable lung inflammation, deep-seated in origin, to produce a pleurisy? We know that certain pneumonias are seldom accompanied with pleurisy until the inflammation reaches the serous coating of the organ, and it is fair to assume that all lesions inflammatory in character, situated well beneath the surface, would cause some pleural involvement. Whether pneumonia or pleurisy be the primary lesion, the lung substance has lost some of its resistance by changes in nutrition, for when there exists any inflammatory trouble there must be the nutritional change by impairment of motion, of expansibility and functions of air-cells themselves. Again, it has long been recognized that the apices are the most suitable residence for the development and growth of the tubercular bacilli, for there they have the least disturbance and they thrive better, the organism being of slow growth.

Professor Coates says, "The localization at the apex of the lung is probably related to the fact that the apices of the lung are the least expansile, and the germ is more liable to obtain a footing when it is left undisturbed." In parts where the air is more or less stagnant, this organism grows particularly well. It must be mentioned that the tidal air, while it should reach well into the apex, does not do so, for we are as a class "lazy breathers" (if this term will be permitted). Seldom, if ever, do we use the tidal capacity until it reaches the apex; hence, these organisms are permitted to grow and develop undisturbed. What would be then further impressed on your minds is that these "respiratory inactive areas," formed by the described adhesions, can be likened to an artificial apex of the lung. We have in them the same condition of the tidal air as we do in real apex, but with their lowered nutrition and limitation of

motion by the obstruction of the inflammatory cell and resulting fibrinous bands. It is then in these apices or "respiratory dead" areas that the lung infection takes place.

CASE I.—Girl aged 8 years. *Family History.*—Tubercular conditions have been prevalent in the family for some years, the father being at this time in a "run-down" condition. There is also one sister in a very weakened neurasthenic and anæmic state.

Personal History.—Many of the usual children's diseases. Typhoid fever. Always subject to croup and colds on the chest with the least exposure.

History of Present Illness.—Mother noticed that the child was becoming careless in her school and had no desire to attend; with loss in weight and an increasing weakness. The fever at this time was a low one, coming on mostly in the evening after the meal, and as the night wore on a profuse sweat made its appearance. In questioning the nurse I received the information that the child had been treated for malarial fever, but she said that never did the temperature reach above 102° , and then only in the evening. The other symptoms noted were pain in the left side of the chest, loss of appetite, some slight cough. Perhaps the most interesting feature of the case was the suggestion of the mother that the disease might have come from an injury the child had received some little time previous, for she said the child had not been the same following a blow she had received on the left chest. At the time of the injury little was thought of it, other than the attending bruises and, for a time, a little catch in the breathing. The mother added, at this time, that she feels positive the child was never the same after it.

Examination.—Child emaciated and with a flushed appearance; tongue coated; abdomen swollen and tender to pressure; some tympanites; urine scanty and high colored.

Examination of the chest showed tenderness over the injured side and a dull area at the base of the left lung, extending posteriorly. The respiratory murmur was decreased on the left side and modified by numerous fine or superficial crepitations. Vocal fremitus and vocal resonance diminished. A few days later there appeared coarser and distinctly crepitant râles. At the left apex there was some dulness and a little harsher

breathing, but practically no cough. A little later she began to cough and began to be troubled with very weakening night-sweats and some pain in the chest. One attack of coughing in particular was followed by a cry and a retch, with an expectoration of six ounces of green pus.

After this it was thought advisable not to wait, but to aspirate the chest at once and, if possible, to drain the lung. The diagnosis now following the rupture of this abscess was a pneumothorax, which could be determined by large bubbling râles and a flat percussion-note.

The breathing became distressed and followed by a bulging of the intercostal spaces. The condition of the child now demanded further surgical interference, and this was begun with the hope of at least relieving the dyspnœa. An incision in the mid-axillary line in the sixth interspace and resection of two ribs gave vent to a large amount of pus; the pleura found to be covered with an exudate which was found to contain the tubercle bacilli. There was also congestion and loss of lustre of the pleura surface. Thin whitish flakes mixed with some yellowish flakes were scattered over it, and the appearance of the two surfaces presented very much the appearance of bread and butter (two pieces of buttered bread separated after having been pressed together)—the so-called bread-and-butter pleurisy. Some few shreds of fibrine were also found on the surface. Abundant granulations and a firm fibrous band were formed by which the pleura was held down to the costal surface, but these could be brushed aside or moved down with the hand. Following upon the liberation of the pus and respiratory collapse, which showed itself as soon as connection was established with the outside air by reason of our fingers breaking up the adhesion, the pleural cavity was washed with a boric-acid solution and a gauze drain introduced. The condition of the patient at this time was very grave, but she rallied and began to improve steadily, until at the end of four months she left the hospital. A few months afterwards, upon being examined by an insurance physician, the examiner made the remark that "the child looks well, but I do not like the left apex." The child has remained in good condition for over four years, but her recovery did not seem complete until we changed the climate and put her on force feeding, with oil massage.

Pardon me if I cite another case.

CASE II.—Male, a blacksmith by trade, with a history of having been kicked on the right side of the chest some time previous, and developing a pain and soreness and inability to breathe freely, which passed off in about ten days or two weeks. Examination at the time of the injury could reveal no fracture, but a severe tenderness over the injured bone, general chest soreness; respiratory sounds and vocal sounds seem normal. Percussion-note could not be determined on account of soreness occasioned by percussion. About five weeks after this injury he began to complain of his "old side going back on him," as he put it; by that he meant that he began to have pain in the side. About this time there developed a cough, which increased in severity, and with this increase a corresponding increase in the pain, so that when he was examined he was found holding his side when he coughed. A gradual loss in weight, a night-sweat and a low, sneaking fever developed; but the patient thinking he could wear off the illness began to work, against advice, and in an attempt to lift a heavy sledge he said he felt something give way inside, so that he was compelled to give up work and felt so bad that he laid over night on the floor of his shop. He was taken home and confined to his bed, and steadily grew worse, until in three months the tubercular process had spread until it involved the whole side, rapidly spreading to the other lung, with a gradual weakening and death.

Reviewing these cases we can say that in the first there is a marked tendency to tubercular disease, but in the second, the patient being in an occupation where muscular strength was developed and where outdoor life was practiced, we could hardly expect to find it. It is significant that the child remained well until the time of the injury, and in the second case the symptoms developed closely on the injury, notwithstanding the strong and vigorous occupation which he followed. In the history of the first case we find, that early she had suffered from tubercular adenitis (cervical) and that they had been excised. It was thought at that time that she would go into decline, but that was six years previous.

In the second case does it seem a mere coincidence that this man should have remained well for so long, then immediately

following an injury of this character he should have developed the trouble? Perhaps the most convincing argument in the favor of such relationship is found in the fact that as far as physical signs are demonstrable, the process began at the site of the injury, which is decidedly contrary to the usual custom, unless it be conceded that the germ lodges where it is used the best, and that is in the quiescent areas of the lung.

The question now arises, to what extent was the lung or the pleura affected by the traumatism? That the pleura was affected is evidenced by the appearance of the fusion, and that the deeper structures were affected is shown by the presence of the abscess of the first case. Whether in the second case the pleura or the lung were affected primarily is not to be considered.

Further reasons may be demanded by some, but it seems not unfair to assume that there exists a close relationship between injury to the chest-wall and consequent lung trouble; but if by calling into question the logic of the paper you arrive at the conclusion that all seemingly hopeless tubercular cases are not doomed, and that a certain percentage, particularly those resulting from traumatism, will respond to surgical interference, then will it have accomplished its purpose. This question is brought to you with the hope that the practitioner will find, during his examinations of tubercular cases, diseased ribs, diseased pleuræ, lung diseases which have been allowed to go unremedied, when at least our surgeon's opinion should be asked concerning them. Let me conclude by offering you this as a diagnostic plea.

NIHILOPATHY.—Dr. Mariani, in the *Revista de Med. y Cir. Pract.*, deplors the therapeutic nihilism of the day. He is an old physician, and acknowledges that in his own long practice his ideas of medicines have materially altered—where formerly he had ten medicines for each disease, now he has but one medicine for ten diseases—but, for all that, the nihilism of the day goes further, and is unreasoning, and not the result of experience so much as it is of unfounded skepticism. Because patients surrounded by the efficacious care of good hygiene get well, the fact that the cure might have been aided or insured by intelligent medication is neglected, or forgotten, or ignorantly denied. Neither hygiene nor surgery can accomplish alone what hygiene, surgery and intelligent medical therapeutics can accomplish together.—*Le Progres Medical*, October 10, 1903.

ACCIDENTAL VACCINATION OF TONGUE AND PHARYNX—A CASE.

BY H. M. EBERHARD, M.D., PHILADELPHIA.

A VERY interesting and instructive case recently came to my notice, interesting especially from a diagnostic standpoint. Helen K., a child of 11 years, was taken suddenly with a chill, followed by a temperature of 103° , pulse 120, respiration 30. The fever continued for three days, when three papules were noticed, two on tongue, one on pharynx. On the fourth day these papules turned to vesico-pustules, with thick indurated bases. Marked enlargement of the cervical lymphatics with mild delirium then followed, the temperature continuing between $101-103^{\circ}$. The vesico-pustules were now covered with a grayish-white film. Repeated cultures taken from the throat showed the absence of the Klebs-Löffler bacillus, thus eliminating diphtheria. No rash appearing up to the sixth day, scarlet fever was excluded. At this point the child's mother mentioned the fact of Helen having played with some empty vaccine tubes which she procured from the children of a physician. Having fallen with one in her mouth it was broken, cutting her tongue in several places. The possibility of accidental vaccination was then beyond doubt a fact, and the subsequent course of the case proved it to have occurred. After the tenth day of illness the temperature came day by day to normal, enlargement of the cervical lymphatics disappeared, and in three weeks from the day of initial fever the child was perfectly well. All that now remains of the trouble are the scars, which are quite plain. The treatment followed was thorough local antiseptics with symptomatic internal medication.

PICRIC ACID LOCALLY IN CYSTITIS.—In a discussion before the Urological Association of France, Dr. Guillon referred to the efficacy of picric acid in the local treatment of chronic, "rebellious" cystitis, particularly in that of tubercular origin. Nitrate of silver in similar conditions aggravates the disease, but picric acid gives prompt relief, the symptoms abating in the following order—the frequency of urination lessens, the pains are relieved, and finally, in many cases, the pus disappears.—*Le Progres Medical*, October 31st.

RATIONALÉ OF THE NAUHEIM TREATMENT OF HEART AFFECTIONS.

BY B. FRANK BETTS, M.D., PHILADELPHIA.

(Read at a Meeting of the Hahnemann Club.)

It is not to be inferred from the title of the subject selected for discussion to-night that the results obtained in the treatment of heart affections, as conducted at Nauheim, have been accounted for in a scientific manner.

From conversation with Nauheim physicians and a study of the literature of the subject, I find many theories have been advanced to account for the results, but they have not been corroborated by evidences obtained from scientific investigation.

My object at present is to direct your attention to certain facts, which appear to be important or essential in this treatment, and have you express opinions upon their relative significance, in order that we may reach conclusions from which such modifications in our methods of treatment may be made, here at home, as will be likely to benefit our patients.

Nauheim is located on what was formerly the outskirts of the Roman Empire. The German tribes to the north paid but little attention, in their uncivilized state, to the curative virtues of baths and mineral springs. But the Romans, on the contrary, placed great reliance upon their efficiency for the cure of rheumatism, paralysis, skin disease, etc.

All the warm saline springs of this region were resorted to at a very early period. I was told that Roman coins are still obtained from the subterranean reservoirs which supply water for the springs, when new "borings" are made, to secure an increased quantity to meet the ever increasing demand.

It is supposed that these coins were dropped into some of the old springs as votive offerings by grateful patrons.

At Homburg, only twelve miles from Nauheim, an old ruin still remains as a mute testimonial to the popularity of these springs in former times.

But Nauheim was less known than Homburg, Weisbaden and Baden-Baden, which are all situated in an irregular line near

the base of the Taunis Range of volcanic hills, until a landsman, passing from a village at a little distance from the present springs, heard strange noises in the earth one evening as he wended his way towards the neighboring town of Unter-Morren. In the morning the people found a spouting spring of hot saline water had burst forth from its confines beneath the surface.

The water soon gained a reputation for efficiency in the treatment of rheumatism. After a time it was found that it benefited the heart affections from which these patients suffered as a sequel to their rheumatic attacks, and in this respect its popularity has steadily increased, so that almost every country upon the face of the globe has been represented in the vast throng that patronizes Nauheim each year; and the little village of former time is almost lost to sight, from the construction of fine villas or cottages, large hotels and splendored streets, and drive-ways that lead into a fine, well-shaded and picturesque park with a handsome lake, fine walks, secluded nooks, and seats, which combine with the genial atmosphere to entice the over-taxed and nervous sojourner to grateful recreation or needed rest.

As a health resort the town is very popular, and the conclusion is reached that this popularity awakens hope. The good the treatment has accomplished for others encourages the people to hope for good in themselves, and it is difficult to measure the efficiency of this sentiment in the treatment of heart affections. From hope, contentment and rest none but the moribund need fail to get some relief at Nauheim. Of the efficiency of rest, combined with exercise from walking, which one is prompted to indulge in, for the purpose of listening to fine music at the Kurhouse near the border of the park, or enjoying the newspapers from home, received almost daily in the reading room, we shall again speak at the close of another chapter.

Attention should first be directed to the baths and the water of the baths. Since a former visit to this place five years ago, several "borings" have been made, and at least one spouting spring has been opened near the two original Sprudel, or spouting, springs. These springs throw a column of water as thick as the arm to the height of from twenty to thirty feet above the surface of the ground.

The water falls into large wooden tanks, from which it is conducted into an extensive underground reservoir, or, more directly, to the bath-rooms in the several bathing establishments, as may be required. Another underground reservoir is so constructed that the water impregnated with its mineral constituents and carbonic-acid gas is conveyed to it as it comes in through the boring of the well, or the well-pipe, before it comes in contact with the atmospheric air, for it loses its carbonic acid and speedily deposits its mineral constituents when exposed to the air, and is changed in appearance from the original crystalline hue, with bubbles bursting in it, to a flat, muddy looking liquid.

The temperature of the water as it comes from the earth varies a little from year to year above and below 30° C., or from 80° F. to 90° F., from no apparent cause.

When the water is drawn into the bath-tubs, the hot-water spigot supplies water that has been heated by passing over a coil of steam-pipes, whilst the cooler water comes directly from the springs, or reservoir.

The bath is prepared by the attendant at the temperature prescribed by the physician on the prescription card, and can be further modified by the addition of mother-lye, a concentrated solution of mineral ingredients obtained by a previous evaporation of the water by heat.

At the commencement of the bath treatment a temperature is prescribed that will not produce much shock to the system, usually about 32° or 33° C. The duration of the bath is increased from time to time, varying from five minutes at first to twenty minutes, as the course of treatment progresses. At first the muddy looking water is used for the bath, and later the full strength of water is secured by using it direct from the springs before any change has been effected by sedimentation and when it contains all its carbonic-acid gas. This "Sprudel" bath, as it is called, is a luxury. It is as clear as crystal and highly refractive to light, so that the human form presents fantastic proportions in the bath; and it is furthermore attended by the deposit of small bubbles of carbon dioxide over the surface of the skin, so that a rapid radiation of heat is prevented and an agreeable sensation of warmth and comfort is produced, as from being wrapped in a warm blanket. On first entering

this bath, at a temperature of 90° F. = 32.3° C., the body is slightly chilled; but as one remains perfectly quiet in the water the accumulation of bubbles is not only attended by the sensation of warmth, but the skin becomes red from the stimulation of the capillary circulation. A glance at the clock on the wall at the foot of the tub tells you when the prescribed time has expired, and you get out and throw a linen sheet over you, which is obtained from a receptacle and warmed by a coil of hot-water pipes, and then ring for an attendant, who comes in and rubs you down, and again retires while you dress.

You are required to go directly from your bath after dressing to your room and remain recumbent for one hour; you may sleep, but not read; you must remain quiet. The direct effect of the bath upon the circulation is interesting. The number of cardiac pulsations per minute is diminished, the area of cardiac dulness is diminished, and the blood-pressure is lowered—from the relaxation and dilatation of the capillaries. The central idea respecting the efficiency of the Nauheim treatment is that it improves nutrition; this does not imply any increase in adipose deposit, but quite the reverse. It is from an improvement in the quality of the blood that the beneficial influence upon the circulatory apparatus is obtained. The heart, arteries, capillaries and nervous-system get an improved blood-supply, and are thereby nourished and strengthened. What a contrast there is between such treatment without drugs and that of former time with drugs, when the weak, already overtaxed heart was goaded by the administration of digitalis and other powerful cardiac stimulants, and the great sympathetic nervous-system was worried and weakened by stimulants, evacuants, diuretics and diaphoretics. To treat the heart efficiently we must improve the functional action of the whole circulatory system, of which it is only the central organ. Even when valvular defects are present, or pericardial adhesions have formed from inflammatory or other causes, we do best when we direct our attention to the totality of the symptoms and treat the sick man, rather than the diseased heart. No drugs are used at Nauheim, and I have been told that the most unsatisfactory cases they have to treat are those that have been damaged by digitalis and other cardiac stimulants.

We cannot ignore the fact that the arteries, capillaries and

even the veins are a continuous part of the heart, so to speak. They all have elastic walls, and are subject to more or less rhythmic action and are influenced by the nervous-system, and unless the nutrition of these structures is properly maintained their functional action becomes seriously impaired, and the down-grade impetus in the whole framework is increased. Heart disease may be caused by morbid changes in the arterial capillary or venous system outside of the heart, as when there is arteriosclerosis, and the heart has to overtax itself in the effort to propel the supply of blood through the unyielding vascular tubes, or when the kidneys are diseased, or the valves of the veins are inefficient. Excessive adiposis damages the circulatory system, so that functional action is interfered with throughout the whole organism, oxygenation is imperfectly performed, metabolism is impaired, and excretion becomes but a poor excuse for elimination. The use of too much meat not only hastens the development of arteriosclerosis after 50 years of age in sedentary people, but also fills the blood with irritating ingredients which fail to be assimilated in the tissues. It is not the amount we take, but the amount we assimilate, that leads to perfect health and vigor. Even the excessive use of water is harmful, for all such influences affect the circulatory apparatus, more than we have heretofore admitted. I am of the opinion that the good Rhine wine which can be obtained at Nauheim is used to advantage in place of too much cold water. Beer should be taken in moderation. Flatulent food should be avoided, and the nutritive value of the diet should be the same, as near as possible, for each succeeding day. The diet must claim consideration in the treatment of heart affections.

Our attention should now be directed to the mineral constituents of the water. In the list obtained from careful chemical analysis we find, first of all, a large quantity of salt, then calcic chloride, calcic bicarbonate, iron, and other constituents in smaller proportions. The free carbonic-acid gas, dissolved or loosely combined, amounts to over 1000 c. c. in 1000 grammes of water. The mother-lye added to strengthen the bath contains in each quart about 22 grammes of salt, 382 grammes of calcic chloride, 76 grammes of magnesium chloride, etc. The physical properties of the water are such as gently stimulate the circulation from shock, then relieve blood-pressure from

warmth, and the dilation of the capillaries. With this we must consider the influence of the water on metabolism. From the salt water we may expect increased osmosis, improved surface metabolism, and the removal of effete material from the glands of the skin by solution and chemical combinations.

Just what may be attributed to the effects of the lime salts and the iron it is difficult to determine, but homœopathic physicians are generally conversant with the effect of small doses of these ingredients when prescribed in the usual manner for defective metabolism, and may claim for the water an approximate homœopathicity to the conditions of many patients.

As I have already intimated, exercise and rest are important features in the Nauheim treatment. It is natural that rest should follow exercise in every part of the human organism, in order to secure the best functional action. Sleep is tired nature's sweet restorer. Stomach rest must follow digestion; cardiac systole is followed by a pause and dilatation; we inspire, expire and then pause. All parts are quickly worn out if called to continuous action. The first effect of the Nauheim bath is to quiet the circulatory current and relieve the heart. Recumbency and rest after the bath prolongs this result. But exercise is just as essential as rest if we wish to gradually improve the strength of an organ, yet it must be graded to a nicety, so that from increased metabolism we may have increased tone and vigor gradually acquired, not ruthlessly wasted. Therefore, exercises are prescribed in the Nauheim treatment. They are passive, as in the mechanical movements of Zander, or consist of resisted muscular efforts prescribed almost exclusively by Dr. Shott. Resisted muscular movements are the best, if they are intelligently conducted by the operator, for he can grade each movement to meet the requirements of the individual. Commencing with weak resistance at first, it is gradually increased a little each day, as the patient may need it. In this portion of the treatment much depends upon the intelligence of the operator. The conditions to be met are, first, to provide such resistance to the muscular efforts as will gently stimulate the circulation in the part and thus unload the muscles of effete matter and furnish a fresh blood-supply. Secondly, to secure absolute rest of the part for a time, by sitting, before another movement is made under re-

sistance, and so on, always taking care that natural inspirations and expirations are effected during each single exercise, and that the patient does not "hold the breath," so as to lead to defective oxygenation of the blood. Every feature of the treatment is rhythmic, not continuous. Rest is followed by exercise, and exercise by rest. Even the baths are not taken daily, but at near the same time in the morning for two days in succession, with a pause on the third day and so on. It is obvious that we cannot strengthen an overstrained heart and circulatory apparatus by overexertion. We must first lighten the work of the heart by diminishing the resistances and obstacles to the circulation in the blood; then improve the nutritive quality of the blood by an appropriate diet, good digestion and gentle exercise, with rest afterwards, and fresh air.

At Nauheim the salt works, or "Grader-werke," as they are called, furnish to the atmosphere salt and moisture. They are made of masses of twigs and boughs of trees piled together fifty to sixty feet high, about ten feet thick, and in the aggregate half a mile long.

Upon these the Nauheim water enters from the top after being pumped up into troughs, and it then trickles over the closely lying twigs as it descends through the mass on its way to the level of the ground. In its descent the mineral ingredients are deposited as an incrustation upon the twigs; the atmospheric air circulating among the twigs carries off the salt-laden moisture and is said to become ozonized. The mass of twigs at the grader-werke become in time a solid wall of stone, like a mineral deposit. This process is going on constantly, and the works are located on the outskirts of the town.

In summarizing the factors of the Nauheim treatment for heart affections we find, first of all, there is much to be attributed to the influence of hope, agreeable expectancy, change of scene, climate, contentment, and good air.

The baths keep the skin in a healthy condition, promote nutrition and elimination, and relieve the overtaxed heart and circulatory apparatus. The rest and the exercise, good air and the prescribed diet, furnish the means for improved nutrition in all parts of the body, and especially in the nervous and the circulatory systems. From an improved cardiac muscular tone, and an invigorated nervous organism, most persons leave Nau-

heim after a course of treatment, lasting from four to eight weeks, feeling very much improved; and I am of the opinion that the adoption of some of the principles of this treatment, in the management of cases at home, will be attended with pleasing results.

FRACTURE OF THE PELVIS DURING FORCEPS DELIVERY. REPORT OF A CASE.

BY THEODORE L. CHASE, M.D., PHILADELPHIA.

ON August 30, 1903, at 8 A.M., M. H., aged 19 (primipara), was delivered of a female child weighing nine pounds. Duration of labor ten hours. The attending physician stated that the presentation was a right occipito-posterior. Owing to failure of the natural forces of labor, forceps was applied and severe traction made for one hour. At the time the head began to descend a snap was heard, being distinctly audible to those in attendance; its cause was not investigated at the time.

During the evening of the same day I was called upon to repair the extensive laceration noted by the attending physician. A local examination revealed an intact perinæum. The urethra was torn from its connective tissue bed under the pubic arch, being dislocated downward to such an extent that it rested on the posterior vaginal wall, leaving a space 2 x 3 centimetres between it and the symphysis pubis. On looking into this cavity the anterior wall of the bladder could be seen, with the continuity of the urethra remaining intact. Upon introducing the index-finger through this opening, the symphysis pubis was found divided and separated for a distance of 7 centimetres.

The patient, firmly supported by an abdominal binder, was transferred to the Hahnemann Maternity Hospital. The urethra was elevated into its normal position and retained with catgut sutures. A permanent catheter was introduced to keep the bladder drained. The symphysis pubis was brought into close apposition by pressure made from each side, and adhesive strips applied, over which a firm abdominal binder was adjusted.

Subsequent Record.

	Temperature.	Pulse.	Respiration.	General Condition.
1st day, .	97° F.	104	22	No complaints.
2d day, .	99.2°	108	20	Patient screams out with severe pain in lower abdomen.
3d day, .	99.4°	108	20	Restless; pain in lower abdomen.
4th day, .	101°	106	22	Sweating; headache.
5th day, .	100°	108	24	Restless; backache.
6th day, .	101°	104	20	Quite comfortable.
7th day, .	101°	104	22	Quite comfortable.
8th day, .	100°	94	22	Quite comfortable.
9th day, .	100°	100	18	Slight odor to lochia; lysol douche.
10th day, .	99°	90	20	Catheter removed.

From this time on the convalescence was satisfactory, with the exception of a slight phlebitis involving the left thigh, and which was obviated by local and general treatment. On the forty-ninth day the patient, supported by a back-rest, sat up in bed. By the fifty-third day she was able to sit up in a chair for half an hour. A week later she walked a few steps with great difficulty; but with each succeeding day locomotion became more natural until, at the expiration of two weeks, she had completely regained her former carriage. Throughout the rest of her time in the hospital she had a gradual convalescence. This was complicated by an albuminuria; urinalysis made at regular intervals averaged as follows: Specific gravity, 1016; albumin present in slight quantities. Output of urea diminished 25 per cent. The microscopic examination revealed narrow hyaline casts, calcium oxalates and some pus-cells.

SUBCUTANEOUS INJECTION OF PURGATIVES.—Experimentally it is found that the vegetable purgatives, aloes, colocynth, senna, podophyllum, etc., have the same action when administered hypodermatically as when given by the mouth. Practically, such a manner of introduction is not permissible, because of the abscess formation provoked by the injection. Seidlitz salt, however, in a dose of 1 gramme of a 2- to 3-per-cent. solution, exerts a direct action on the intestinal peristalsis quite different from that produced by injection by way of the stomach.—*Le Progres Medical*, October 10, 1903.

EDITORIAL.

FOOTBALL.

It is the duty of us as physicians, as conservators of the public health and morals, to a certain extent, to decide for ourselves upon the character of a game which is lauded by its friends as beneficial mentally, morally and physically to the young men of the day, and which has the sanction and approval of many, though by no means all, of the most prominent educators. We must be careful not to be led astray by the glamor and enthusiasm which, from the very nature of the game, attends it, nor to be carried along by the fashion of the hour.

Although too often prostituted to further private aims and interests antagonistic to the public good, it cannot be denied that there is no surer indicator of public opinion, or of a change of opinion, than the public press. In most cases it originates public opinion or is itself only an articulate expression of the game we do not consider here, but we find in the facts that the casualties attending the game of football are reported with editorial comment, that suggestions for a change in its present rules are given place in its columns, and that very lately the opinions of noted educators as to its relation to college life have appeared by request, are indications that the long-hoped for and long-ago predicted reaction against the brutalizing and degenerating influences of the game has at last set in. We believe this to be the case in spite of the crowds that still attend the games, in spite of the hordes of gaping unemployed who still watch the bulletins of the progress of games between noted teams, and in spite of the enthusiasm which seemingly attended the late contest between the Army and Navy teams, encouraged as it was by the presence of "beauty and fashion" and high officials. In spite of these apparently contradictory evidences, we think it is plain that there are arising doubts in the public

mind whether the play is worth the candle, whether the empty honors attending a victory are not too dearly bought at the price of the numerous injuries, often fatal, which are invariably sustained by contestants in the game. Each death occurring, each injury inflicted is becoming the nucleus of a growing antagonism to the brutal character of the game. All talk of its preserving and developing the manly qualities of youth is felt to be but a lame attempt to gloss over and to divert the attention from its most objectionable features.

It has been said that the game tends to the growth of an *esprit de corps* amongst the students, and serves to bring them together by their interest and pride in the success of their respective teams. It is true that in colleges attached to football teams there is a bond of union among the students. They feel that on the success or failure of these depends the corresponding reputation of the college; the "event" in which their team participates surpasses in importance any other event in their collegiate life. We grant all this, but see in it no reason for congratulation, no argument in favor of the game. We all know the whispered scandals—hardly regarded as scandalous—in regard to inducements held out to particularly prominent or skilful athletes to enter certain colleges, that they might gain for them success in the athletic world and thus attract other students. Does not this naturally set up a false ideal, strengthened and upheld by the abnormal and excessive admiration accorded those who succeed in winning first honors in this branch of collegiate work? Is it a thing to be proud of that an institution of learning—an establishment devoted to the cultivation of the sciences and arts of civilization—should be judged, not by the conduct and attainments of its undergraduates, and the experience and abilities of its teachers, but by the record of its football teams, and the skill of its physical instructors and coaches in the arts of barbaric warfare? Is the *esprit de corps* based upon interest and pride in the results of such contests an ennobling one? Is it one which can contribute to the lasting honor and renown of an institution of learning? But it may be said that by the use above of the terms "abnormal" and "excessive" we have virtually acknowledged that there might be something different, that these faults are not inherent in the game itself. The game, however, is such that in order to be-

come a successful player a certain amount of training is necessary, and this very training is used by the advocates of the game as an additional recommendation.

In order, however, that the training necessary to the game may be given, time must be sacrificed which should be devoted to the mental training, which is the ostensible purpose of the student's presence at the college. The facility with which this time is diverted from its legitimate purpose by the connivance of the faculties of the colleges, naturally comes to be regarded by the students as an indication of the relative importance of the objects to be gained. If, therefore, everything else may be set aside in order that this training and practice may be carried out, then are this, and the object to be gained by it, of paramount importance, and success in its attainment to be prized above every other success. Thus the abnormal and excessive admiration which tends to set up a false ideal seems to be inherent in the game, or at least inseparable from it as at present allowed in the colleges. Our premises may be denied, but it will only be by those whose words and actions prove that they are unassailable.

Does the game contribute to the general good by arousing a desire for physical culture, such as would benefit the whole body of students? We think not. That in the minds of those who have a natural leaning to athleticism it may and usually does excite a desire to emulate the deeds of their favorites, and lead to a one-sided physical culture is true, but upon the great mass of students it exercises no such influence. They are content to toot for their representatives and find sufficient satisfaction in appropriating to themselves, through their *esprit de corps*, the glories gained by the prowess of others. Far better would it be if general physical culture would take the place of so-called "sports," for which a limited kind of training is necessary, and which call for occasional excessive exertion on the part of a few picked men.

Finally, we regard the game not only as brutal in itself, as played, but as having a degenerating, brutalizing tendency. As one of its ardent advocates lately said, "It is a fight, but a fight in which gentlemen may indulge." With the first part of this we are fully in accord—with the last—?—. It is a game which has been shown time and again by the *personal*

character of the contests to arouse the lowest, most brutal instincts of our nature, those which we have endeavored by centuries of advancing civilization to restrain and overcome. Participants have frequently acknowledged that in the heat and excitement of the game it was impossible to restrain the impulse to do certain things which are theoretically forbidden by the rules. Look at the kicking, squirming heap of contestants, and try to picture it as a fight of gentlemen! Look at them, dishevelled, wounded, as they separate, leaving always one or more lying partially or wholly unconscious, or injured, perhaps fatally, and try to convince yourself that it is a fight of gentlemen! Listen to the friends of the victors, as they make night hideous with their shouts of triumph, and see their conduct as they parade the streets, and try to believe that they are gentlemen—in disguise. It may be that the members of the team themselves behave with quiet modesty, but the influence of the spirit of the game is only too evident in the conduct of their followers.

We maintain that a game in which the personal element is so pronounced, where man meets man and the contest is really mainly one of brute force, must be in the end brutalizing in its effect, not only upon those participating in it, but also upon those who witness and applaud it. It wants but little to have our fair enthusiasts demand, by turned-down thumb, the complete disabling of a temporarily injured opponent, in order that their own favorites may serve.

The gradual, but very evident, decadence of those finer feelings of chivalry and respect for age and sex, which formerly were supposed to characterize the American gentleman, is due, we think, in a great measure to the unfortunate fad for athletic sports, which, as an extreme reaction in the direction of physical culture, has prevailed in late years. Look about, in our public places, and public conveyances, and see whether we find under the garb of gentlemen, the same respectful deference to women, the same consideration for age and weakness that once were noticeable. No; brawn rules the day, and strength gets and keeps the best place. Notice the talk—it is not conversation—and conduct of would-be gentlemen in the presence of women, and mark the effect which the return to the rough sports of the rustics of the past has had upon the

rising generation. It is impossible to avoid the effects of habit and association; they may be concealed for a time, but it is only by a thin plaster, which cracks and warps when put to the test.

A DISCLAIMER OF RESPONSIBILITY.

THERE appeared in the October number of the *Medical Advance and Journal of Homœopathics* an article entitled, "The Rejected Paper on Tubercular Infection." A preliminary note states that the rejected paper was prepared to be read before the International Congress on Tuberculosis which met in London in 1902. This paper was duly forwarded to the proper representatives of the Congress and its receipt acknowledged. No notice whatever was taken of the paper by the Congress, and a memorial was drawn up by the authors of the paper requesting an investigation of the matter by King Edward.

As to the authorship of the paper, we are told that "at a meeting of physicians held in Brooklyn, on the 2d of June, 1901, it was resolved to address you on the subject of Tuberculosis, and a Committee was appointed, designed to be representative of a large section of medical thought in the United States, to prepare and forward such address in accordance with the views then and there expressed. It was deemed expedient to appoint a 'Reporter' to draw up the Committee's address, who should forward a copy of his draft to each member of the Committee. Dr. Levenson, of Brooklyn, was selected for this purpose. With the exception of a few literary criticisms and the extracts from the '*Canadian Lancet*,' the report prepared by Dr. Levenson received the unqualified approval of every member of the Committee, and no reserves or revisions are desired by any of them."

Dr. Levenson divides his paper into nine parts. Under the first heading, "Tuberculosis, With Especial Reference to Legislation Thereon," we are told that there is "no ground for any call for special legislation with regard to it, except to repeal laws enforcing unsanitary practices, such, especially, as vaccination."

In the next section the author tells us that "not only has the

infectiousness of Tuberculosis and of many other diseases been asserted upon insufficient and misinterpreted facts, but in the face of facts clearly indicating the exact opposite. Unfortunately, this superstitious belief renders those who are possessed of it blind to the most obvious facts." "One of the main causes for the spread of the disease is not infection, but fear. Now all legislation professing to aim at protecting people from infection unavoidably helps to create scare."

Under the third heading, "Smallpox Infection a Myth," we read that "among the bold but untruthful assertions of official doctors is one that the condition called smallpox is highly infectious."

From the sixth section we quote the following: "Pulmonary tubercle is not the effect of germs; neither is it the result of an inoculable parasite found in the atmosphere."

Then, after stating that "atmospheric germs never cause tuberculosis or any other parasitic disease," and that "tuberculosis and bubonic plague are due to continued vaccination," the author proceeds to vituperate the dominant school of medicine and "ignorant law-makers who act upon the advice of ignorant official doctors, always anxious for a chance to augment their Power, Place and Pelf."

To discuss in an argumentative manner such statements would be to confer upon them a dignity which their absurdity does not warrant. The numerous fallacies, both in the premises and in the deductions, are so apparent to anyone conversant with the facts of modern medicine, that we will not take the time to debate them. Why does the publication of such an article concern us as members of the medical profession?

First, because such opinions coming from a supposedly reputable medical man, if spread abroad by the lay press, would undoubtedly work great harm to the cause of public hygiene. Many ignorant and careless persons, already chafing under the restraints imposed upon those suffering from contagious diseases, would be only too glad to find some such excuse to justify their disregard of measures adopted for the welfare of the State. Second, because it is lamentable, indeed, that a physician, who is bound to advance the good name and honor of the profession in every just way, should publicly denounce his fellow-physicians as being "brutal, ignorant and craving for Power, Place and Pelf."

Why does the publication of such an article particularly concern us as members of the homœopathic school? In the first place, being placed before the profession and the public by a homœopathic physician, through the medium of a homœopathic journal, it will be understood by many to represent the views of the homœopathic school of practice. Thus we are laid open to the charges of being fanatics and enemies of proper sanitary laws. In the second place, it shows that there are in the homœopathic school certain individuals who apparently think it their duty to differ in every respect from the accepted views of the medical profession, and to adopt any new theories, however absurd, as long as they are antagonistic to those now held. These speculative hypotheses, unsubstantiated by facts, they endeavor to impose upon us under the name of "homœopathy." Intrenched behind unproven and preposterous theories which have no connection with the principles of homœopathic prescribing, these self-appointed apostles employ their time by vituperating the allopathic school and condemning as "mongrels" those of the homœopathic school who do not participate in their peculiar beliefs. Such writers, by their statements and actions, disgust the friends of homœopathy, discourage investigation by scientific observers, and bring us nothing but ridicule and contempt. We have no hesitancy in saying that this class of men constitutes the greatest drawback there is to the general recognition of the fundamental truth of homœopathy.

The true friends of homœopathy are those who realize that its position is to be advanced, not by condemning the labor of others, nor by elaborating speculative theories, but by persistent, earnest work. Repeated demonstrations of its practical value, by patient investigation in laboratory and at the bedside, is the most effective way of gaining for homœopathy the proper recognition and respect. There are in the dominant school of medicine sincere and earnest men who are as anxious to know and to utilize the truth as we are, and who will accept that truth when it is scientifically demonstrated to them. We are optimistic enough to believe that such a demonstration and recognition of the essential truth of homœopathy will some day be accomplished.

In the meantime what should be our attitude toward those

writers who work so much harm to our school by attempting to infuse into it dogmatic views of their own production? In self-protection we should disclaim any responsibility for their theories and make it clear to the medical profession that they do not represent the views of the homœopathic school. The reading of such articles before medical societies and their publication in homœopathic journals should be discountenanced. To those who sincerely hold such views, so contrary to all medical experience, we would suggest that they devote the energy they spend on theories to the investigation of facts. When they have established by research any new facts, we will be glad to recognize their worth and to commend their labors. Until then let them cease from their vituperative attacks and consider the words of the old philosopher, Ben Johnson: "Time obliterates the fictions of opinion and confirms the decisions of nature."

G. H. W.

THE DIGNITY OF MEDICAL LITERATURE MUST BE MAINTAINED.

A RECENT number of one of our exchanges contained an article, which for lack of dignity, if not actual obscenity, exceeds anything we have seen in our editorial career. It matters not that the journal in question is comparatively obscure, or that it is representative of but a limited portion of the profession, the fact that any medical journal, even though it represented but one man and that one the editor, should contain an article of such a character is of itself sufficient to cause the entire medical profession to blush at the thought that anyone should regard such stuff as interesting to any class of readers. We express our satisfaction that the culprit is not an editor of a homœopathic journal.

CORRECTION OF AN ERROR.—A writer in *American Medical Monthly*, speaking of the therapeutic effects of atropine, states that the *first decimal* trituration, as prepared by *homœopaths*, is a very convenient form for internal administration. This will be news to the homœopathic school, but we doubt if many of them are using atropine for that purpose; hence they will differ with the author in his opinion as to the convenience of the 1x trit. One cannot believe everything one reads in medical journals.

GLEANINGS.

TREATMENT OF TAPEWORM.—(Gerhard.)—The writer's views on this subject are given in summary, viz. :

The preparation of the patient is a most important matter, and requires to be carefully and completely carried out to effect an expulsion of the worms.

Most authorities agree that twenty-four hours before the administration of the medicine the patient should be required to fast and have the bowels thoroughly emptied and washed out by means of purgatives. This allows the drug to come in direct contact with the parasite without the interference of food that may be in the bowel.

Besides the male fern, we have a powerful vermifuge in the drug *kooso*, the dried flowers and immature fruit of the *brayera anthelmintica*, a tree of Abyssinia. These two drugs have been used from time immemorial and have done good service.

Kooso, however, is liable to produce severe nausea and vomiting in some cases.

The bark of the root of the pomegranate is also efficient, together with its alkaloid, *pelletierine*, named in honor of the chemist Pelletier.

These are very unpalatable drugs and may cause toxic symptoms in doses large enough to be effective.

Oil of turpentine at one time was much used and is very powerful, but on account of the difficulty of administering it and its nauseating taste, it is very little used, except as a last resort. It must be combined with castor oil to be of any active use, and the quantity used is two ounces of oil of turpentine with four of castor oil; together we have a horrible dose, enough to scare our patient from us.

Kamala is a very active drug, but is not often used, for the reason that it causes nausea and vomiting.

A very valuable remedy is pumpkin seeds, especially in children. It is harmless and easily taken when powdered and mixed with sugar. Others can be mentioned, but they are not as certain in their action and are more unpleasant than those named.

The whole worm must be expelled with its head segments, entirely and completely, or it will develop again in from six to eight weeks, for if the head still remains in the intestines it will be necessary to repeat the treatment on the appearance of the parasite.

The great drawback to nearly all the methods of treatment in this condition is the large doses of medicine required and the loss of time to the patient from his occupation during its application. In looking over some of the formulæ that are highly praised and which seem to be largely used by many regular practitioners, we find the dose measures a pint or more of a bitter and nauseating mixture, which has to be taken at one or two draughts.

In delicate, weak and debilitated patients this is a serious matter and the treatment then becomes barbarous.

In these days of elegant pharmacy and improved methods of administering drugs, there is no need to hold on to the old, yet efficient, methods, but turn our attention to applying these same old remedies in a better and much more acceptable form.

To this end I have found a combination of two of the drugs mentioned, namely, male fern and pelletierine, most suitable, and applied in the following manner :

There is no necessity for the patient to make several days' preparation. The loss of one meal—breakfast—is all that is required. In many cases the most convenient day to select for giving the medicine is Sunday, for the reason that most patients are at leisure at that time.

Instruct the patient to clear out the bowels the day previous with one or two large doses of castor oil or salts. One dose may be given in the morning and one at night, an hour or two after a light supper.

The next morning, as early as possible, say at 6 o'clock, give at one dose a pelletierine tannate, 20 grains, in two capsules. When this has operated freely, in about two or three hours begin with the following :

R. Olei resinæ aspidii.	. . . . .	ʒii.
Ætheris.	. . . . .	ʒii.
Hydrargyri chloridii mitis.	. . . . .	gr. xii.
M. et div. in capsulæ No. xvi.		
S.—Two every ten minutes.		

Of course, it is understood that no food is taken during this time. In about two or three hours the worm will be expelled whole, with its head fastened to its neck.

Recently, in seven cases, I have found this method to give successful results without any recurrence. It is generally difficult to find the head, on account of its small size, and one cannot give assurance that there will not be a return of the parasite unless the head is found, or after the lapse of six or eight weeks, when no segments are found in the stools.

It is well to instruct the patient to pass all the bowel movements into a vessel of warm water on the morning the medicine is taken. In this way the worm can be secured when it is passed and saved for examination. No traction on the protruding worm should be permitted for fear of tearing the head off and losing it.

The patient can then rest, and if there is any depression light food may be allowed. This depression is slight and has never been known to last longer than two hours.—*Medical News*, November 14, 1903.

William F. Baker, A.M., M.D.

TERMINAL SYPHILIS.—(Dougherty.)—The article is written as opposing Fournier's view and term of "parasyphilis." The writer thinks the term terminal syphilis corresponds more accurately to our knowledge of the existing conditions. Locomotor ataxia is used as the condition representing his claims; this disease, he says, is not diagnosed in 50 per cent. of cases in the earlier stages. The chief reasons advanced by those opposing the syphilitic nature of tabes are : 1. That the statistics always contain a number of

cases that are not apparently specific cases. 2. The pathology of tabes does not resemble syphilitic lesions. 3. Uselessness of antisyphilitic remedies in the treatment of disease. 4. The rarity of tabes as compared with syphilis. 5. The comparative infrequency in races which are particularly prone to syphilitic infection, namely, Chinese and negroes. 6. The infrequency of tabes among prostitutes. Notwithstanding these many valid reasons the writer maintains that they are insufficient to substantiate the fact.

It has long been a well-understood fact that the patient's statement cannot be taken as proof positive in these cases; again, ignorance of the existing condition may be a cause for denial, as a child having contracted syphilis in early life. The lessened frequency in the Chinese and negroes can be ascribed to the methods of life. Mane and Guilliau have advanced a theory concerning tabes, and that is that the posterior columns and spinal pia have a separate system of lymphatics, and they regard the tabetic process not as a lesion of the posterior root axones nor of the neuroglia, but simply as a syphilitic disease of the posterior lymphatic system: a syphilitic lymphangitis.—*Medical Record*, November 14, 1903.

William F. Baker, A.M., M.D.

OCULAR HEADACHE AND OTHER OCULAR REFLEXES: A STATISTICAL STUDY.—(Zimmerman.)—Two series of 1000 cases each were selected for observation, and of these 2000 cases coming under the writer's care during his ophthalmic practice, 1427 presented headache in some one of its forms as a symptom. Frontal pain seems to predominate, next fronto-occipital pain, and next occipital.

An attempt was made to determine, if possible, a definite relationship between certain forms of headache and certain refractive errors, but results failed to give any satisfaction. This fact was established, however, that a compound hyperopic astigmatism of small degree was responsible for most cases. The onset of the pain bears a close relationship to work, usually coming late in the day. Continuous work within the reading range is by far the most common exciting cause, intense watching of distant objects perhaps comes second. Travelling offers a third cause, giving rise to so-called "travellers' headache."—*New York and Philadelphia Medical Journal*, November 21, 1903.

William F. Baker, A.M., M.D.

TREATMENT OF ANGINA PECTORIS.—(Waugh.)—In a short and interesting article the author sets forth the following views: This distressing and alarming malady appears to be increasing in frequency; at least reports of its occurrence come to me in increasing number. It is usually associated with some organic affection of the heart or of the thoracic vessels, no one of which has been found constantly associated with angina pectoris, yet there is not one with which these seizures have not been recorded. Toussaint, however, asserts that this is often a pure neurosis, and that no organic lesion is found on autopsy.

Be this as it may, angina pectoris is one of the most frightful of seizures. The attack comes suddenly; the patient is seized with agonizing, cramp-like pains in the region of the heart, his face is white, shrunken, the features expressive of the agony he suffers. The body is bathed in cold sweat, the voice lost or sunk to a husky whisper. The universal description he gives of the sensation is that of an iron hand crushing his heart in its relentless grasp.

The pain may follow the course of the intercosto-humeral nerve to the left shoulder and down the inner aspect of the left arm. The pulse is feeble, thready, or scarcely discernible. The condition is one of imminent danger, and many cases end in death during the paroxysm.

The treatment of the paroxysm is simple. Glonoine most quickly unlocks the spasm and returns the blood to the skin. Give $\frac{1}{250}$ grain, and repeat every minute until relief ensues and the face flushed. This effect is deepened and prolonged by giving atropine $\frac{1}{250}$ grain every ten minutes till the mouth begins to dry. The patient may then rest assured that there will be no further attack as long as this effect endures. It may be indefinitely prolonged by repeating the atropine whenever the dryness of the mouth subsides. While any salt of atropine will answer, it has seemed to the writer that a speedier action results from the valerianate.

Structural lesions of the heart are to some extent amenable to treatment. Rheumatic, syphilitic and other deposits waste away under the influence of such remedies as the following: Mercury biniodide, gr. $\frac{1}{20}$; iodoform, gr. $\frac{1}{2}$; arsenic iodide, gr. $\frac{1}{87}$; and phytolaccin or stillingin, gr. $\frac{1}{2}$; to be taken before each meal and on going to bed, and continued for months. The arsenic exerts an action upon the nutrition of the heart that would not be believed by those who give it in maximal doses for a week or two only. Uric acid manifestations likewise subside under the influence of colchicine.—*Therapeutic Gazette*, November 15, 1903.

William F. Baker, A.M., M.D.

THE RATIONAL TREATMENT OF POST-PARTUM INFECTIONS OF THE UTERUS.—(Gillian.)—The normal death-rate of puerperal infection was about 1 per cent., but after curettage it amounted to 20 per cent. The sharp curette was especially dangerous, as it not only failed to remove the germs, but destroyed the protective barriers. As it was impossible to say that streptococcus infection was not present in any case, the only safe way was to eschew the sharp curette entirely in puerperal infection. Curettage was permissible only when there was known to be puerperal *debris* in the uterine cavity, and when there was reason to believe no streptococci were present. The finger or dull curette with stiff handle should be used for this. Flushing, if done at all, should be done with every precaution against infection. The patient should be on a table in a good light, the vulva and vagina cleansed, the latter with 5-per-cent. creolin in liquid-green soap, mopped, dried, the retractor introduced, the cervix grasped, drawn down and steadied with forceps, the cervical canal wiped out with gauze and bits of membrane picked off with forceps. Introduce the irrigator gently and flush. If the pulse and temperature dropped, repeat daily or oftener, otherwise discontinue.—*Medical Record*, October 31, 1903.

THE MUD BATHS OF FRANZENSBAD FOR THE TREATMENT OF DISEASES OF WOMEN.—(Nenadowitsch.)—The physiological effect of the mud bath shows that in a bath of 40° C. there is a diminution of pulse, temperature and blood-pressure, with reaction after the bath, all of which is due to the effect of the baths upon the nervous-system, especially the vasomotor. The diminution of blood-pressure in the bath during the first few minutes is in direct proportion to the temperature of the mud and the degree of the pressure. In the next few minutes nature strives to preserve the *status quo*, but

a high temperature interferes with the increase of blood-pressure. The increase of the blood-pressure after the cleansing bath corresponds to the difference in the temperature of the mud and of the cleansing bath. He arrives at the following conclusions :

1. The highest temperature for mud baths at Franzensbad must be 40° C.
 2. Exudates in the small pelvis require a higher temperature than hæmorrhage from the genitalia.
 3. The temperature of the cleansing bath must be lower than that of the mud bath, if we wish to increase the effect of the latter.
 4. The mud bath, independent of temperature, must be thick in all cases.
 5. The patient should not remain sitting in the bath longer than ten minutes.
 6. The cleansing bath should not be longer than five minutes.
 7. In cases where the full mud bath is contraindicated on account of diseases of the heart and lungs or brain, the half-bath or Sitz bath can be used.
- Centralblatt für Gynakologie*, No. 29.

THE METHOD OF OPERATION FOR CANCER OF THE UTERUS.—(Olshausen.)—The principle of operating in all cases by the abdomen shoots wide of the mark and will alter itself in time. Olshausen has had 18 per cent. of permanent results in the vaginal operation. In recent years he has operated on 50 per cent. of all cases. The last two years he has had 341 cases of cancer and operated upon 210. In 206 of these the vaginal operation was performed, with 17-per-cent. mortality. There are 4 abdominal operations with 1 death. It is impossible to remove all of the pelvic connective tissue, and therefore some glands will remain. The abdominal operation is to be preferred in those cases where it is necessary to protect the ureter, if the examination shows that the ureter may be involved in the growth of the cancer.

Winter has had in his clinics 240 cases of cancer of the uterus and performed the radical operation upon 57 per cent. of them. The cellular tissue was free in 40 per cent. He estimates that there are upwards of 25,000 cases of cancer of the uterus in Germany.

Glockner reported 59 cases of extirpation of the uterus by Wertheim's method, with a mortality of 10 per cent. At the present time there were only 10 recurrences, which was scarcely half the number observed in the same space of time which had been operated upon by the vaginal method, a fact which he believed warranted further use of the abdominal method.

Wertheim states that the absolute or final results in the Vienna statistics are three times larger for the abdominal than for the vaginal operation.—*Centralblatt für Gynakologie*, No. 29.

THE TREATMENT OF DEPRESSIONS OF THE SKULL IN THE NEW BORN.—(Baumm.)—The writer reports four cases. All of them were difficult deliveries and contracted pelvis. In three cases the impression was made by the promontory of the sacrum on the parietal bone, and in one case there was a multiple fracture of the frontal bone. A corkscrew was quickly disinfected, and through a small opening bored into the bone and the depression raised in a few minutes. Respiration and heart-beats immediately improved, but the child died later. The post-mortem showed that the brain was not injured, but there was a very considerable intracranial hæmorrhage. It was not dependent upon the hole in the bone made by the corkscrew, which appeared

to be quite a simple puncture. The writer on this account had made an instrument for the purpose of raising these depressions, which resembled a very small corkscrew, with the spirals close together. In both of the next cases this instrument was bored directly into the depressed bone without a previous incision. The bone was easily elevated. One of these children died from intracranial hæmorrhage and the post-mortem showed that the corkscrew was in no way to blame. It need hardly be said that the instrument was only screwed in barely deep enough to hold the bone. The other child made a good recovery, and a similar result was obtained in the fourth child, in which the forehead was badly broken, which was all the more remarkable, as it was a case of premature labor at the thirty-sixth week.

It is possible that the two children which were relieved might have lived without operation, but it would remain to be seen whether such a deformity of the skull might not result in some affection of the brain.—*Centralblatt für Gynäkologie*, No. 19.

A CASE OF VAGINAL CÆSARIAN SECTION FOR ECLAMPSIA.—Westphal had a case of typical eclampsia in a 23-year old woman pregnant for the third time. She had had three severe convulsions, when several large doses of morphia were administered, and after several hours delay, during which she had another convulsion, she was removed to the hospital. Here, after suitable preparation, Westphal rapidly dissected off the bladder from the anterior wall of the uterus up to the vesico-uterine fold of the peritoneum, where the anterior wall of the uterus was incised, and the fetus removed, the procedure requiring in all but five minutes. On account of atony of the uterus, a severe hæmorrhage set in, which was controlled with tamponade of the uterus, after which the incision was sutured. No more convulsions followed the delivery, and Westphal believed that to the rapidity of the delivery is ascribable the favorable result.—*Centbl. f. Gyn.*, 1903, 46.

Theodore J. Gramm, M.D.

HYSTERECTOMY FOR PUERPERAL INFECTION.—Doleris remarks that the indications are as yet undetermined, although over 100 cases have been published. The mortality is still over 90 per cent. In two cases examined post-mortem, the author believes there may have been a possibility of saving the patient by operation. He does not favor operation, but thinks that now and then a case may be encountered in which operative intervention might avail.—*Centbl. f. Gyn.*, 1903, 47.

Theodore J. Gramm, M.D.

GONORRHOEA AND THE PUERPERAL PERIOD.—Audebert reaches the conclusion that gonorrhœa may cause illness during the puerperium. Although the disease, as a rule, remains localized in the genitalia, it must not be overlooked that the gonococcus shows a predilection for the endometrium. During pregnancy gonorrhœa not rarely induces pyelonephritis, a fact which has not, as yet, received sufficient attention.—*Centbl. f. Gyn.*, 1903, 47.

Theodore J. Gramm, M.D.

RUPTURE OF THE UTERUS.—Ivanoff (Moscow) has shown from 124 cases that the most frequent cause is contracted pelvis. In the flat pelvis the tear is always transversely in the supravaginal portion of the cervix. The patients were all multiparæ. The mechanism of labor in certain cases of pronounced flat pelvis brings about the occipito-posterior position, whereby pronounced

distention of the anterior cervical region is induced. The traumatism of this region in previous labors may have brought about a cicatricial change of the tissues, and hence a predisposition to rupture.

Under purely expectant treatment only 21 per cent. recovered, while a comparison with other statistics shows that operative treatment gives twice as good results, though simply suturing the laceration gives the patient, according to the author, very unfavorable chances.—*Centbl. f. Gyn.*, 1903, 47.

Theodore J. Gramm, M.D.

DRAINAGE AFTER ABDOMINAL SECTION.—The *Centrbl. f. Gyn.*, 1903, No. 47, contains two interesting abstracts. Doderlein reviews his 754 abdominal sections, excluding operations for carcinoma, with reference to drainage. His total mortality was 3.7 per cent. In 593 undrained cases the mortality was 2.3 per cent.; in those drained per vaginam 8.7 per cent.; and in 12 cases drained, according to v. Miculicz, only 1 died. The high mortality of drained cases is ascribed not to drainage, but to the serious operations required; 161 cases were drained, of which 149 were through the vagina and 12 through the abdominal wound. The results of drainage varied according to whether the cases were infectious or not. In cases of tubal abortion with hæmatocele there were no ill-effects. He considers drainage called for in these cases to remove unavoidable post-operative secretion. The results were good in cases of chronic pelveo-peritonitis with adhesions, but without pus foci, and in cases of intraligamentary myomata. On the other hand, the cases involved in purulent processes had a high mortality.

Fehling's article also is abstracted. He believes after abdominal section vaginal drainage is less useful than abdominal. Vaginal drainage is indicated when the pelvic connective tissue is extensively opened and in those cases where collections of pus or of blood have been given exit through the posterior vaginal wall. He drains the abdomen exclusively by means of v. Miculicz's method. The indications are:

1. In abdominal section, when much pus has gained access to the field of operation and extensive areas of peritoneum are not healthy, or when the connective tissue has been largely opened.
2. When pieces of purulent or necrotic cyst-wall must be left behind and which cannot be closed off from the free abdominal cavity.
3. In hæmorrhage from flat surfaces which cannot be otherwise stopped, or in venous hæmorrhage from the deeper parts of the pelvis.
4. In injuries, or previously existing fistula of the intestines or bladder.

Theodore J. Gramm, M.D.

THE DANGER OF THE TRENDELENBURG POSITION.—(Franz.)—This article, based on clinical observations in the Women's Clinic at the University of Halle, is a further discussion of a paper on the same subject written by Kraske for the Surgical Congress of this year, and published in the *Munchener med. Wochenschrift*, No. 24, 1903. Kraske called attention to paralysis of the anterior tibial nerves due to direct pressure in this position, and that emphysema of the abdominal walls might occur as the result of coughing or vomiting while the pelvis was elevated and the air might be pressed under the skin. Both these conditions are avoided easily. Emphysema is prevented in this clinic by pressing the air out of the peritoneal cavity after the pelvis is lowered, just before the last stitch is tied. Kraske reported two

fat patients, one of whom was operated on for stone in the bladder and the other for papiloma of the bladder. Both of these suffered from severe disturbance of the circulation. Both cases had myocarditic symptoms previous to the operation. One died on the second and the other on the fifth day from cardiac weakness, which developed after the operation. Kraske did not ascribe the result to the possible effect of the ether, but that acute dilatation of the heart was produced by increase of venous pressure during the elevation of the pelvis.

Intestinal obstruction developed in a third case on the second day after an operation for stone, with extreme dilatation of the colon, but the obstruction disappeared on the fifth day.

Severe vomiting of blood and signs of intestinal obstruction developed on the day following an operation in the Trendelenburg position lasting twenty-five minutes. Kraske opened the abdomen and found the large omentum lying completely under the liver, and as the result of this position a rotation of the transverse colon, with complete obstruction of the gut. After he had separated a few adhesions and replaced the omentum, the obstruction disappeared and the patient had a copious stool, but in spite of this the patient died. The autopsy showed small ecchymoses in the mucous membrane of the stomach, some of which were in the middle of a small ulcer. Schauta has also reported cases of twisting of the bowel in cases operated on in the Trendelenburg position. The hæmatemesis is ascribed to venous stasis, and Kraske advises against operating on fat patients with disturbance of the circulation, with the pelvis elevated.

Trendelenburg stated that fat persons with myocarditis often suffered from cardiac weakness without elevation of the pelvis, and reported one case of death from vomiting, the stomach contents getting into the air-passages.

V. Eiselberg, after a large experience with the position, lost one case from apoplexy on the third day after the operation.

König does not use the position when operating for intraperitoneal abscesses, to avoid pus running into the upper part of the abdomen.

Kümmell, in 1000 operations in this position, had seen no disadvantage from it, but care must be taken to keep the pharynx free from contents of the stomach, and Sprengel recommends washing out the stomach in all cases before operating.

The writer has used the position in 745 laparotomies without disadvantage, which may be due to the fact that dry sterile towels are used to hold the intestines back in each laparotomy. The intestines and omentum stick somewhat to the towels, and are drawn back into place by them when the towels are removed. The position is useful especially in abscesses of the small pelvis, as the intestines can be removed and separated some distance by gauge compresses which protect the peritoneum from infection.

A large ovarian cyst should not be punctured in this position, as it is difficult to avoid soiling the peritoneum with the fluid from the cyst.

The effect on the pulse and respiration was studied on 15 women, 3 of whom were without narcosis and 3 were given chloroform. There was marked diminution of abdominal breathing in all cases, and inspiration and expiration became more difficult. Thoracic respiration was deeper in most of the cases, but scarcely enough to be called compensatory, or, in other words, the ventilation of the lungs is diminished by elevating the pelvis. The pelvis should

be elevated slowly to avoid the cyanotic appearance which often follows rapid elevation.

The writer compares the results of ether and chloroform narcosis in major operations. In 825 ether narcoses in the dorsal position only, there were 19 cases of bronchitis; after 493 ether narcoses in the Trendelenburg position, there were 44, or in the first group 2.3 per cent., and in the second 8.9 per cent., of bronchitis, or, in other words, four times as many cases of bronchitis with the pelvis elevated, as compared with ether narcosis in the dorsal position.

In 150 chloroform narcoses in the dorsal position there were 4 cases of bronchitis (2.7 per cent.), and in 233 chloroform narcoses, with the pelvis elevated, there were 9 cases (3.9 per cent.), not a marked difference.

Respiration may be termed a secretory process of the bronchial mucous membrane. In the Trendelenburg position the mucus collects in the pharynx and post-nasal space, but in the dorsal position it collects in the cavity of the mouth and can be removed or easily flows out. When the narcotized patient is let down from the elevated into the dorsal position, the mucus contaminated by bacteria easily reaches the trachea, and bronchitis results if the mouth is not thoroughly wiped out.—*Centralblatt für Gynäkologie*, No. 32, 1903.

George R. Southwick, M.D.

EXTRAUTERINE PREGNANCY.—(Fehling.)—Tubal abortion and tubal rupture in extrauterine pregnancies are not exactly the same thing. The hæmorrhage, especially, is quite different. In rupture of the tube the abdominal cavity is filled with blood, but in tubal abortion the hæmorrhage is moderate, frequently repeated and rarely threatens the life of the patient, although it has happened to the writer that from such a small opening in the tube, often scarcely one or two millimeters, a fatal hæmorrhage may result, while a comparatively much larger laceration of the puerperal uterus rarely causes a fatal hæmorrhage.

The differential diagnosis of the retrouterine hæmatocele in tubal abortion is very difficult from the similar condition in a suppurating tubo-ovarian tumor, or adnexa tumors, with pelvic peritonitic exudation in the pouch of Douglas. Exploratory incision or aspiration is often indispensable for diagnosis and also for deciding upon operational procedure. The presence of blood is not a proof of tubal abortion. Puncture should not be made with the simple syringe, but with trocar and Dieulafoy's apparatus. The leucocyte account is not important in the differential diagnosis between tubal abortion and the adnexa tumor. The long-lasting irregular hæmorrhages are seldom found in tumors of the adnexa.

If the tube is ruptured and the abdomen is filled with blood, the operation should always be performed, even in desperate conditions.

The decision of operating for hæmatocele depends principally upon the time at which the abortion has taken place. In tubal abortion of only four to six weeks the ovum is readily absorbed, but in the large carneous moulds of the second and third month, which remain more or less in the tube, require months for absorption, and in these cases operation is the proper method of treatment. In general, the abdominal operation is to be preferred to the vaginal operation, only chosen in small tumors which are perfectly free in the pelvis.—*Centralblatt für Gynäkologie*, 1903.

LABOR AND PREMATURE LABOR IN TUNIS.—(Bouhadjeb.)—Labor among the Arabic women in the cities is in charge of older women and takes place upon a kind of labor-chair, while the women in the country give birth in their travels, partly standing and partly kneeling and bent over. If the labor does not go on readily, very drastic measures are employed. The various arts for hastening labor are harmless, such, for instance, as drinking the wash-water of the toes of the husband or water colored by ink from which a priest has written some verses of the Koran. A more serious method, for example, is hanging up the lying-in woman by the arms, while the assistants knead and press down the abdomen or the compression of the abdomen with a plank by several men. Premature labor is induced by rolling a millstone around the abdomen. Neither mother nor child are washed until a week after labor. Light and air are entirely excluded from the sick room.—*Centralblatt für Gynäkologie*.

THE SURGICAL TREATMENT OF SALPINGITIS.—(Coe.)—Gonorrhœal pelvic inflammation is self-limited. The septic inflammation is prone to be diffuse, and this has led many physicians to adopt the expectant plan of treatment during the acute stage of pelvic inflammation. The modern teaching is to operate early, thoroughly and intelligently, as soon as pus is detected. An extensive exploration to find the pus is sometimes necessary, but usually results in evacuating the abscess at that point. The propriety of the vaginal incision and drainage of pyosalpinx is generally recognized. Fluctuation alone has ceased to be regarded as an indication for operation. The careful surgeon does not open a supposedly simple case of pelvic abscess without being prepared to open the abdominal cavity, if necessary. If the collection of pus is in the pelvic brim, it is not a suitable case for the vaginal operation, though it depends upon the special skill of the operator in all these cases where radical operation is likely to become necessary.

He doubts the practical value of attempting to disinfect the tube by syringing it out. The practical difficulty in all conservative operations on the tubes is to decide what tissues are healthy and what diseased. Curettement should precede all operations of the tubes, and when the radical operation is necessary it is far better to excise the tube and suture the cornu of the uterus than to employ the older method, leaving a stump. The time has passed when the ovary is removed on one side because the tube is diseased. The modern surgeon always keeps in view the remote, as well as immediate, results of operations.—*The Medical Record*, October 31, 1903.

CHRONIC METRITIS.—Theilhaber has given considerable attention to this subject, and two more publications appear. He finds that, macroscopically, the mucosa shows no particular abnormality, and it is especially not thickened. On section the uterus shows a less red color, and even the unaided eye can distinguish many grayish sinewy fibres running through the organ. Many bloodvessels also are visible, for they are much more numerous than normally.

Microscopically, there was shown in all cases to be a decided decrease of the muscular and an increase in the connective tissue. The relative quantity of these two tissues varied in different places as much as in the normal uterus. In the latter he has previously shown that the quantity of the connective tissue varies according to the age of the woman, the number of pregnancies, etc.

But even taking this into account there is still a decided increase in the connective tissue, as compared with the amount in a normal uterus of corresponding age and number of parturitions. The muscle areas in the diseased uterus are mostly smaller and the connective tissue surrounding them is thicker, while more numerous and larger branches of connective tissue enter the muscle areas and again divide to form smaller meshes; in other places the connective tissue almost entirely displaces the muscle. In cases of longer duration the number of bloodvessels is always increased. The walls of the vessels are thicker than normal; but he does not place much weight upon this as a cause of hæmorrhage, for, as a rule, there is not atheroma of the vessels, but an occlusive arteritis, as is normal after delivery, abortion and in the aged.

From his microscopic studies, in conjunction with his clinical experience, he reaches the conclusion that this is an exceedingly frequent disease, whose beginning is to be sought in the mesometrium. That the disease is primarily in the mesometrium and does not arise from disease of the mucous membrane is shown by the microscopic examination, for the mucous membrane is not thickened, while there is a decided change in the mesometrium, with considerable enlargement of the uterus.

Chronic metritis is characterized by decrease of the muscular and increase of the connective tissue, with enlargement of the uterus, dilatation of the cavity and increase of blood in the organ. It is true that this connective tissue hyperplasia is a physiological condition in the preclimacteric years and after the menopause. But at that time the normal uterus does not tend to become larger, but on the contrary it atrophies; it is not hyperæmic, but anæmic. But, when with atrophy of the muscle and increase in the connective tissue, there is pronounced hyperæmia of the uterus, venous stasis sets in, since, in consequence of decrease of the muscle, the uterus becomes "insufficient," that is, its contractility is too weak to aid in driving the venous blood toward the heart. This venous stasis then gradually leads in the course of months or years to an enlargement of the organ, but was originally inaugurated by vasomotor disturbances, with subsequent dilatation of the vessels and increase of connective tissue.

Respecting the cause of chronic metritis, we find that the older authors regarded it as frequently arising from an acute metritis. According to Theilhaber's observations this is rarely the fact. Occasionally, there is moderate swelling of the uterine parenchyma in prolonged uterine gonorrhœa; occasionally, also, puerperal metritis gives rise to connective tissue hyperplasia; but these cause but a small percentage of the cases of metritis coming under observation. It has been generally assumed that tumors, like myomata, carcinomata, etc., cause metritis, but his observations do not confirm this belief. One of the most frequent causes of chronic metritis is beginning climaxis, and it is astonishing how frequently the uterus will be found enlarged, thickened, mostly relaxed, though occasionally hard, and its cavity dilated. Irritation of the mucosa excites but little reaction. The uterus is frequently so large that one is often in doubt whether it is not myomatous. During these years chronic metritis is mostly due to a disappearance of the muscular tissue which constantly accompanies approaching senility of the genitalia. This disappearance of the muscular tissue is normally accompanied by a stenosis of the vessels and diminished blood-supply. If these conditions remain absent for any cause, as, for instance, from excess in venery, luxurious mode of life,

etc., there results venous hyperæmia and hyperplasia, or chronic metritis follows, accompanied in a few cases by secondary swelling of the mucous membrane or fungous endometritis. It must not be overlooked that in the first stage, shortly after the occurrence of venous stasis with preclimacteric hæmorrhage, the uterus is sometimes small and atrophic, and that therefore there may exist preclimacteric hæmorrhage with small uterus and atrophic mucous membrane.

Frequent parturition predisposes to chronic metritis from muscular atony, for the multiparous uterus is always more rich in connective tissue than the nulliparous. In women, also, in whom the puerperium has recurred rapidly, there will be found enlargement of the uterus, menorrhagia and leucorrhœa. We may say in general that the number of births bears a certain relation to the size of the uterus. It is possible that muscular tissue is lost from the delivery itself and from disturbances in the puerperium; wherever specific tissue-elements are destroyed they are replaced by connective tissue. Some of the connective tissue may also originate from the numerous vessels of the pregnant uterus, which becomes transformed into solid bands. This condition explains also the frequently observed weakness of the labor pains and the atony leading to retained placenta and post-partum hæmorrhage, as well as to a tendency to inversion of the uterus. Overexertion of the uterus in contracted pelvis appears to predispose to muscular atrophy and connective tissue hyperplasia, for atonic conditions of the uterus are particularly noticeable after such deliveries.

Chronic metritis occurs after prolonged diseases of the adnexa, especially after long lasting, subacute or chronic perimetritis, in consequence of salpingitis. Spontaneous recovery takes place after parametritis ceases, though the uterus may long remain enlarged.

Theilhaber has often seen myodegeneration in consequence of chlorosis, and in severe diseases of the lungs, in typhus, and rheumatism, and during convalescence from these diseases. Insufficient development of the uterine muscle has often induced hæmorrhage in young girls.

The symptoms of chronic metritis are mainly hæmorrhage and leucorrhœa. The hæmorrhage results from the venous stasis, and because the atrophic uterine muscle contracts insufficiently during the menses. The most severe hæmorrhages are observed in preclimacteric metritis, and may continue for weeks or months, and is often followed by amenorrhœa for several months, during which time, in contradistinction to carcinoma, the patient is quite free from any discharge.

Leucorrhœa is rather scanty in elderly women, and is scanty or absent in preclimacteric metritis; whereas in younger women it is rather profuse during the intermenstrual period. There is no pain connected with chronic metritis, and if present can usually be referred to a perimetritis or other complication. Neither is there sensitiveness to pressure in uncomplicated cases, and no reflex pains like neuralgia. Dysmenorrhœa and sterility do not appear to be related to chronic metritis.—*Archiv für Gynæcologie*, Bd. 70, H. 2.

Theodore J. Gramm, M.D.

COEXISTING INTRA- AND EXTRAUTERINE PREGNANCY.—Meyer, of Hamburg, reports two cases in detail, which he discusses in conjunction with other cases recently published. In speaking of the diagnosis he points out that the

clinical manifestations of this combination may be quite variable and the diagnosis correspondingly difficult. It is easiest when the evidences of interrupted ectopic gestation are simultaneous with the extrusion of the intrauterine ovum. In the early stages of pregnancy the diagnosis can only be established with certainty under such circumstances, since the succulent uterus of ectopic gestation, changed by the decidual formation, is scarcely to be differentiated from a pregnant uterus. Then, again assuming a normal pregnancy, the adnexal tumor has diverse significance as long as it causes no characteristic symptoms.

In Meyer's cases, in spite of the existence of both pregnancies, there was no characteristic picture. The history was useless for the diagnosis. In one of his cases the history indicated no definite conclusions for the diagnosis of ectopic gestation, neither of rupture nor tubal abortion; and the second case was absolutely uncharacteristic; in neither case was there sudden, severe internal hæmorrhage which would attract attention. In one there had at least occurred acute pain, in the other it was not present. It is peculiar that the latter case completely simulated perityphlitis without the abdominal operation showing any affection of the appendix, but the same occurred in other cases referred to. In both instances exploratory puncture of the vagina at once cleared up the diagnosis.

Much has been said for and against puncture of the vagina. Braun-Fernwald advises against it and suggests the danger of hæmorrhage and the possibility that the result of the puncture may give rise to errors in diagnosis. Meyer, however, regards it with favor and has used it in a number of cases without accident. It is self-evident that exploratory puncture may lead to errors in diagnosis, as, for instance, when an ovarian cyst and ectopic pregnancy exist at the same time and serous fluid alone is removed by the syringe. The result of exploratory puncture, therefore, must not be accepted as final, but should be regarded as an important diagnostic factor and used in conjunction with all other available evidence. If a disagreement appear between the clinical signs and the result of exploratory puncture, it will indicate that complications exist, and when puncture in several places does not aid the diagnosis, we may determine upon exploratory cœliotomy. The simultaneous existence of intrauterine pregnancy need not be a contraindication for the operation, as is shown by the cases of Hermes and Mond, in which, after cœliotomy, the pregnancy continued and was terminated by spontaneous delivery.

Cœliotomy is the dominant treatment of a positively recognized ectopic gestation, but the recent operation through the vagina has its advocates. The two cases under discussion were operated through the vagina, mainly because of the pronounced protrusion of the posterior vaginal wall which, especially in the second case, progressively increased and pointed to an encapsulation; and also because septic degeneration of the clots required treatment through the vagina. The ultimate result in both cases was quite satisfactory.—*Centralblatt für Gynäkologie*, 1903, No. 46.

Theodore J. Gramm, M.D.

PNEUMOTHORAX ASSOCIATED WITH FRACTURE OF THE RIBS.—(Murphy.)—Few cases are reported of injury to the chest-wall and associated with entrance of air into the pleural cavity. The first case was of a fireman, aged 40, who was thrown from his engine and run over by the wheel. After the injury the patient seemed to be in a collapsed condition, but one of mild degree only.

Examination showed bodily contusions and a dislocation of the left shoulder; also fractures in the second, third, fourth and fifth ribs. This fracture occurred in the mid-axillary line. The patient was anæsthetized and the dislocation reduced. During the night the patient steadily grew worse, became cyanosed and color became extremely bad. Examination of the chest showed tympanitic resonance over the right side and absence of the vocal fremitus and respiratory sounds. The condition of the patient became so aggravated that puncture of the area became a necessity. Puncture was made below the angle of the scapula, and at once there was an outrush of air followed by an amelioration of all symptoms. The dyspnœa disappeared, color returned, and patient showed even more decided improvement when aspiration was performed. At this time there was present some paroxysms of coughing. From this time the patient made an uneventful recovery, being discharged on the ninth day.

The second case was that of a boy, 9 years of age, who was thrown from a bicycle. When brought to hospital the color was bad, respiration hurried and distressed, pulse 135, and with marked emphysematous swelling of both sides of neck and the left back. The chest was resonant all over, with an absence of breathing and fremitus on the left side. No evidence of fracture could be made out, but a general tenderness under the emphysematous area.

His condition became so grave that a trocar was inserted under the left scapula and with the discharge of a large quantity of air and amelioration of symptoms.

It has long been recognized that interference is not always necessary to relieve intrapleural pressure, but from these two cases it would seem that with increasing cyanosis and localizing emphysematous and resonant areas that great relief has been experienced by means of the trocar.—*Boston Medical and Surgical Journal* (vol. cxlix., No. 18), October 29, 1903.

William F. Baker, A.M., M.D.

WHY NOT ABSOLUTE PRECISION IN CHYME ANALYSES?—(Knapp.)—We may gather some idea of the article from his summary which is as follows: "I want to reassert that, while dimethyl reacts very sharply on free mineral acids, it also reacts on other weak acids; it reacts on such degrees of acidities of acids, other than hydrochloric acid, as are absolutely within the bounds of even a subacid stomach. That the supersaturated alcoholic solution of tropeolin 00 stands in no way behind the reagents of Gunzburg and Boas, but that it has the additional advantage over these, inasmuch as it can be used for titration, and this with absolute precision. That both free hydrochloric acid and organic acids very, very often exist simultaneously in the same chyme; that the presence of free hydrochloric acid does not negate the additional presence of organic acids, but that the presence of relatively large quantities of organic acids are abnormal and produce symptoms; that the presence of relatively large quantities of organic acids, either introduced into or formed within the stomach, gives the symptom-complex described by me as 'organacidia gastrica' (*N. Y. Medical Record*, September 6, 1902). That the presence of organic acids can and should be tested for by my direct method—described by me as the floating test—a test very easily carried out in about a minute or two. That free hydrochloric acid, organic acid and the general acidity can be determined (and this has always been done by me) in one and

the same specimen, thus enabling us to work with very small quantities and also to save time."—*Medical News*, November 14, 1903.

William F. Baker, A.M., M.D.

DIFFICULTIES AND INSUFFICIENCY OF THE STENOSAL THEORY OF ADE-NOID DEAFNESS.—(McKeown.)—The following propositions indicate at least some of the relations of a depressed membrane to the tympanic tension :

1. The reduction of the quantity of contained air and the diminution of the tympanic cavity may proceed simultaneously and *pari passu*, so that from beginning to end the tension remains unaltered—that is, there would be a depressed membrane, although there was not, and never had been, a diminished air tension.

2. The situation up to a certain point may be as above described, but beyond that point the diminution of the cavity fails to keep pace with the reduction of the quantity of the contained air leading to a diminution of tension, which may persist until the time of examination. Here we have retracted membrane in the earlier stage without, and in the later stage with, diminution of tension.

3. From the beginning to the end there may be a disparity between the two processes, so that the reduction of the air exceeds the compensating diminution of tension—that is, with the retracted membrane there is a concurrent diminution of tension.

4. The diminished air tension just referred to may, by amelioration of the pathological conditions, be raised to the normal, whilst the membrane retains its faulty position. In this instance, with retracted membrane, the tension is in the earlier stages diminished, and in the later stages undiminished.

It is thus plain that mere retraction of a membrane indicated in relation to the tympanic air one, and only one, fact, namely, that its quantity has been reduced. Mere retraction gives no information whatever as to the state—present or past—of the tympanic tension. Depression of the membrane may not inaptly be described as an automatic process by which the intratympanic tension is up to a certain point maintained.

If a depressed membrane warrant an inference as to tension, it must be by reason of some peculiarities which it presents. What are the characteristic signs, first, of an existing diminished tympanic tension ; and, secondly, of a past diminished tympanic tension ? It might seem at first sight that the degree of the depression would afford us some help, but a little inquiry shows how valueless it is. Whether in a given case there is a diminution of tympanic tension depends upon the answer to two questions: First, By what quantity has the contained air been reduced ? Secondly, To what extent has the capacity of the containing cavity been diminished by the depression of the membrane ? If the second be sufficient to neutralize the first, the tension is normal ; but if it be insufficient, then the tension is lowered.

How far are we from being able to answer these questions will be seen when we remember that the air-containing cavity is the tympanum plus its annexes, the antrum and mastoid cells ; that the capacity of the antrum and mastoid cells varies within wide ranges, from the sclerosed to the pneumatic mastoid ; that in an individual instance we are unable to estimate it even approximately ; that being unable to estimate the capacity of the cavity, we cannot tell by how much it has been reduced by the depression of the mem-

brane, and are therefore unable to balance the diminution in capacity with the reduction in quantity of the air ; that a moderately depressed membrane may be as, or more, significant in one case (say a sclerosed mastoid), as a greatly depressed membrane in another case (say a pneumatic mastoid) ; that no method has been suggested by which the reduction in quantity of the air can be estimated.

5. If the stenosal teaching be sound, the history of adenoid deafness should be one of diurnal periodicity, the patient rising deaf from diminished air in the tympanum, the result of hours of sleep, and going to bed at night hearing comparatively well in consequence of the restoration, complete or partial, of the tympanic air tension effected by the repeated acts of swallowing during the day when the buccal respiration renders the naso-pharyngeal tension normal. Such is not the history of patients.

6. The theory is inconsistent with the immediate effects in audition as the result of operations. With (a) the immediate improvement in cases where the membrane is not perforated. It is admitted that, except in rare cases of greatly enlarged tonsils, the air tension in the respiratory tract is not diminished during the day when the respiration is buccal ; consequently, at the time of operation it was normal and the operation effected no change in it. And with (b) the immediate improvement taking place in cases where the membrane is perforated. This improvement is not covered by the theory, because the membrane being perforated the tympanic air tension would be unaffected by the operation.—*The British Medical Journal*, October 31, 1903.

William F. Baker, A.M., M.D.

BENZOATE OF LITHIUM IN THE TREATMENT OF CORNEAL MACULÆ.—Calcium carbonate and phosphate have been found to exist in a great number of corneal lesions. It is therefore reasonable to believe that in dissolving these salts vision may be improved. Bunbacher alone has attempted to do this by means of a 5-per-cent. solution of sodium carbonate. This method is too violent for habitual use. In order to obtain the same result the author has used an aqueous solution of lithium benzoate in 2½- to 10-per-cent. strengths. The action of lithium benzoate as a solvent of the carbonate and phosphate of calcium is, he says, well established. For four years past he has employed this method and reports two cases. In the first, in a child of 8 years, there was a diffuse corneal haze dotted with white points, which prevented a view of the pupillary area. Yellow oxide of mercury ointment had been used without effect for a period of six months. Instillations of lithium benzoate solution resulted in a cure one year later. In the second case there was a densely opaque semilunar scar involving the lower part of the cornea. It had the appearance of being incrustated with calcareous material. Former treatment having been useless, instillations of the lithium benzoate solution were used for six months, resulting in a cure of the case.—*La Clinique Ophthal.*, Mazet, Marseilles.

William Spencer, M.D.

CINCHONIN INTOXICATION.—The following interesting case has been recorded. The patient was a woman of 40, who for some time had been subject to malaria and was unable to take quinine, because of the ill-effects of the drug, for after taking the smallest dose she would have attacks of dyspnoea and be covered with an exanthema. Consequently she was put on cinchonin

sulphate. In twelve hours she was unable to see the minute hands on her watch or to read the register on a clinical thermometer. This happened practically every time she took the drug. One morning she took a powder at 6, one at 7 and one at 8, and at 11 o'clock her vision began to get cloudy; but at 11 o'clock that night she could see all right again. The trouble was a paresis of accommodation, not associated with any other eye symptoms.

The process commenced about four hours after taking the cinchonin and lasted throughout about twelve hours.

It seemed to run its course more rapidly when large doses were taken. It is remarkable that none of the symptoms of quinine intoxication were present, and, so far as we know, the symptoms produced in this patient have never been observed as a result of taking the sulphate of quinine. The latter produces subjective symptoms which are clearly referable to an involvement of the retina, and not the slightest symptom which could be referred to retinal trouble was noticed in this case.

Quinine, then, is a poison which affects the retina, and cinchonin, on the basis of this observation, is shown to affect the uvea only.—*Annals of Ophthalm.*, G. J. Schaute, Amsterdam.

William Spencer, M.D.

THE COMPLETE CORRECTION OF MYOPIA.—The writer gives first the rules laid down by Douders and then mentions the communication by Pfalz, in 1901, strongly supported by Heine. However, Förster, in 1885, and Risley, in 1903, maintained that complete correction of the myopia in youth would be a powerful aid in combating its progression. Hess and Heine demonstrated that the accommodation does not change the intraocular pressure, but convergence increases it, so the near point for distinct vision must be removed from the eye.

Dr. Bylsma criticises the value of large statistics, as it is impossible to control all the patients, regarding their following up of our advice, their habits, the amount of their work, etc. Small statistics of patients who have been entirely controlled have far higher value. Bylsma's own myopia, which originated after his 19th year, increased with nose-glasses, until he began wearing nearly full correcting spectacles at 25 years; he changed these at 40 years for nose-glasses. In the beginning the myopia reached R. E. 2.5 D. and L. E. 3.5 D.; his first spectacles were 2.5 D.; as, however, the myopia of his L. E. increased till 4.5 D., he corrected this fully, and since, there was no more increase. He had read much, but looked carefully after his attitude; outdoors he exercised his distant sight: his advice for all his near-sighted patients.

He used to correct young myopes under 6 D. completely. If the accommodation in the beginning was somewhat difficult, he gave in as little as necessary and as long as it could not be helped; always spectacles. For myopia of 7 to 13 D. spectacles for continuous use; but 1 to 3 D. weaker. Only myopes older than 30 years could use nose-glasses. The first twenty young myopes of which he knew had followed up his advice and worn the spectacles continuously, and which he had followed up, he comes to the conclusion that full correction and the continuous wearing of the spectacles in youth in no decisive way prevents progression. Four of the twenty remained stationary, but these four quitted school and asked little from their eyes. The average time of observation of the others is three to five years, and the progression

1 to 4 D. Full correction then is no preventive of increase.—*Annals of Ophthalm.*, Dr. Bylsma.

William Spencer, M.D.

RADIUM AND BLINDNESS.—Dr. Almon Jenkins and Mr. W. J. Hammer, an electrical engineer, are engaged in some interesting experiments with radium on a blind girl. That the optic nerve of this child is practically dead would seem to be shown by the fact that it is stated that the child saw nothing when magnesium ribbon was burned before her eyes, yet it is claimed that under the conjoined action of the X-ray and radium the child declared that she saw light. While there is no likelihood that these experiments have any practical bearing, they are of interest in connection with a study of the marvelous properties of the new substance, radium.—*Jour. Amer. Med. Ass'n.*

William Spencer, M.D.

POST-MORTEM PUPILLARY CHANGES.—Placzek says that the pupils of men and animals change after death in a certain definite manner which he calls "pupillary rigidity."

The action of myotics and mydriatics—with the exception of suprarenal extract—is without effect upon the pupil after death, no matter how strongly it may act during life. Suprarenal extract acts after death as a mydriatic; it delays the rigidity of the pupil decidedly and inhibits its intensity. The post-mortem rigidity of the pupil is purely a muscular process.—*N. Y. and Phila. Med. Journal.*

William Spencer, M.D.

SUBTROPICAL TRACHOMA, AND A NEW REMEDY IN ITS TREATMENT.—Ruffin A. Wright describes under this title a rather mild type of the disease, and one which the negro almost wholly escapes. The author advocates the use of a 5-per-cent. ointment of copper citrate, although believing that a 10-per-cent. ointment will be readily tolerated as soon as excessive secretion has been allayed by one of the silver salts. This treatment appears to have originated with F. R. Von Arlt, but it has not been used before in America. Emphasis is laid upon the fact that it does not cure trachoma more quickly than other non-operative methods, but possesses the very great advantage of causing so little pain that the patients readily submit to daily home treatment for a long period.

Another claim made for it is that it produces absorption and disappearance of granulations and hypertrophied papillæ quite as rapidly as other applications. The majority of patients will tolerate the application twice a day. A good plan is to apply the remedy at night, letting it remain in the eye during the night.

Its use is contraindicated when there are corneal ulcers or iodine preparations are being used, either externally or internally.—*Amer. Med. Jour.*, Ruffin A. Wright, Mobile.

William Spencer, M.D.

THE TEACHING OF THERAPEUTICS; A SYMPOSIUM.—(Wilcox.)—The importance of an article of this kind cannot be overestimated, and if it can be suggested in such articles that more attention ought to be paid to our therapeutic progress, then will its use become very apparent to all. It is known and much talked of, that our diagnostic progress has been phenomenal compared with that made along therapeutic lines. In the course of the article the writer says: "I do not underrate the value of pathological knowledge,

neither do I deery the importance of etiology or history, nor ignore the advantage of expert physical diagnosis, nor minimize the weight of trained and logical reasoning, nor deprecate the assumption of conclusion based on long-continued experience; all these are necessary for a diagnosis, but logic, learning and experience are in the greatest demand, that the fullest advantage may accrue to the patient when once the diagnosis is established."

The more pressing question is "What can we do for our patient?"

In order to evince an interest in the student for the study and observance of our *materia medica*, the next question naturally is, "How shall our *materia medica* be taught and our applied therapeutics best administered?"

Therapeutics can best be taught by clinical teaching and experimentation with the uses of all the instruments of precision.

Causes of failure in the past may be ascribed to a lack of a practical acquaintance with the various remedies and methods of preparation, a lack of actual knowledge of drug-action acquired by personal experimentation and demonstration under the guidance of the teacher; the comparatively small amount of experience in the application of the remedies to the relief of the sick, and the want of a logical deduction from symptomatology to the remedy. This last can only be gained by practice and conference.—*Medical News*, October 10, 1903.

William F. Baker, A.M., M.D.

PARASYPHILITIC AFFECTIONS.—(Post.)—Under this name must be included pigmentary syphilis, acute hystero-neurasthenia of the secondary period, neurasthenic manifestations of the advanced period, hystero-epilepsy, tabes, general paralysis, epilepsy and special forms of muscular atrophy, and also for hereditary syphilis, general and partial atrophies, organic malformations, notably dental, physical and mental undevelopment, rickets, hydrocephalus. Concerning the therapeutics of parasyphilitic affections, it can be said that they do not respond to the iodides or mercuries. Two characteristics distinguish the syphilitic from the parasyphilitic, viz., the parasyphilitic affections are not referred necessarily to the syphilis as a cause, and they are not affected by mercury and the iodide of potash, as are all purely syphilitic lesions. As explanatory of these conditions, the doctrine of toxins comes to the front, but whether this be permissible is as yet to be learned. The so-called parasyphilitic affections are gone over and explained.

As the writer explains, this must be considered only as one of the early attempts along this line, and further states it to be a condensation of Prof. Fournier's book, with enough of the original added to lay the claim of an article more than a simple condensation.—*Boston Medical and Surgical Journal*, October 15, 1903.

William F. Baker, A.M., M.D.

LEFT-SIDED APPENDICITIS.—(Holmes.)—The results of the autopsies in two cases are given. The cases were adult males. In one case the appendix was attached just below the ileo-cæcal valve (which was on the left side of the fourth lumbar vertebra), and pointed upward and backward towards the liver. In the second case, the appendix was a little to the left of the median line, entering the cæcum as it rested upon the promontory of the sacrum, the base being on a line between the anterior superior spinous process of the ilium, the body running up in front of the sigmoid mesocolon, then turning downward in front of the omega loop in front of the brim of the pelvis. Associated

there were correspondingly great displacements among the other viscera, but these can be explained from foetal happenings. The pain is not alone on the left side in left-sided cases, but may be reflected to left side and yet have lesion on right.

McBurney's point should, according to the writer, correspond with the base of the appendix, and not occupy any fixed position.—*New York Medical Journal*, October 17, 1903.

William F. Baker, A.M., M.D.

DISCUSSION ON THE RELATION OF THE BACILLUS OF SHIGA TO THE SUMMER DIARRHŒAS OF CHILDREN.—The discussion before the American Pædiatric Society, May, 1903, was opened by Dr. Simon Flexner, who stated that in a large proportion of the cases which came to the Wilson Sanitarium near Baltimore, during the past summer, which were examined bacteriologically, there could be obtained the bacillus of Shiga, which he thought to be the definite cause of a certain type of adult dysentery.

The appearance of blood and mucus in the stools generally resulted in the finding of the bacillus, while if blood or mucus alone were found the results were not so satisfactory. This is about the status of the studies, so far as they were carried out last summer.

The picking out of the organism is often a confusing task, as the colon bacillus is so much more rapid in its growth than the dysentery bacillus. Dr. Flexner states that the trick is to take a blue wax pencil and mark out on each culture plate the colonies present at the end of twenty-four hours, which are not to be considered; then those colonies which manifest themselves later are to be considered suspicious.

Dr. Flexner further stated that there were two well defined groups of organisms, the one when grown upon mannite not making any change upon litmus, while the second type, which has all of the other cultural properties of the first, does produce a change in the litmus.

Dr. Henry Koplik, of New York, in continuing the discussion, stated that he thought the summer diarrhœas affecting children might be divided into three groups. The first he titled the dyspeptic group, in which he accounted for the attacks as being due to an anatomical and physiological inability of the gut to cope with a foreign element, namely, cow's milk.

The second group he classed with that class of diarrhœas which are caused by the micro-organisms in the food itself; that is, in the cow's milk, which carries with it a certain number of organisms which, if allowed to proliferate, will cause digestive or even inflammatory disturbances. To this group would belong the cases due to the bacillus of butyric acid, in which there are very considerable amounts of very foul-smelling acid stools; also those due to the bacillus lactis aerogenes.

The third class include the infectious cases. In this group belong the staphylococcus infections and those due to the Shiga bacillus, which include a distinctly limited class of diarrhœas.

Dr. L. Emmet Holt stated that in 112 cases in which the stools were studied bacteriologically, and which were taken at random, including all kinds of intestinal disturbances, the Shiga bacillus was found in 37 cases. These 37 cases all had the symptoms of colitis, and most of them were acute, usually beginning with fever, which frequently was as high as 103° F. The stools contained much mucus and often blood; in no case where both blood and mucus were

present was the organism absent ; it was not found in all the cases where the stools contained mucus alone, even when the quantity was considerable.

Fifteen cases of Shiga colitis have been studied at the autopsy by Dr. John Howland. Nearly all varieties of inflammation were met with except the croupous form. In 6 acute cases there was an intense congestion of the mucous membrane, while in 5 subacute cases there was follicular ulceration, which was usually superficial.

Dr. Booker, of Baltimore, mentioned that the only case which came under his observation last summer, and in which examination was made for the Shiga bacillus, was found to belong more to the cholera infantum type than the dysenteric. The child had only been sick a few days, and had not lost much flesh. It was slightly toxic and had frequent watery stools, with very offensive, putrid odor, and without mucus or blood. From the condition of the child and nature of the stools he felt confident that cultures would show large numbers of the proteus vulgaris. Contents from the rectum were taken with a glass tube and delivered to Dr. Duval within a few hours. He reported the cultures as almost pure of the Shiga bacillus and contained no proteus bacilli.—*Archives of Pediatrics*, November, 1903.

C. Sigmund Raue, M.D.

SUGAR METABOLISM AND DIABETES.—When Pawlow demonstrated that pancreatic juice as secreted into the intestine in an inactive form is rendered active by another ferment, *enterokinase*, secreted by the intestinal mucosa, he did more than give a new light on the process of digestion in the intestine, for he pointed the way to new researches. One of these fruits is the important discovery of O. Cohnheim concerning the mechanism and the agents concerned in sugar metabolism, apparently a discovery that clears up at last a fundamental process of metabolism which has long evaded solution. It is, indeed, strange that the history of sugar in the body has not been completely worked out long ago, in view of our familiarity with its chemical properties and structure, and the large quantities that the body daily utilizes. We have long been familiar with certain steps in its metabolism, knowing that in whatever form it is ingested it is absorbed as a monosaccharid ; that a fairly constant amount is maintained in the blood through the ability of the liver and muscles to convert any excess into glycogen and to restore it whenever there begins to be a deficiency ; and also that if the sugar in the blood greatly exceeds the normal amount it begins to escape into the urine. We also knew that sugar was the chief source of heat and energy, which it furnished by undergoing destructive oxidation ; and as the chief place where heat and energy is produced is in the muscles, it was probable that the oxidation took place within the muscle-cells. Yet experimentally it had not been possible to demonstrate any such property in the muscle tissue. It was known that glycolytic ferments exist that have the power of destroying sugar, but extracts prepared from muscles in various ways were found to have no such property, or at least not enough to begin to account for the enormous destruction of sugar that the body accomplishes every day. And so, despite the apparent certainty that the muscle tissue was the seat of an active glycolysis during life, the agent concerned could not be found within them by experimental means.

Another set of facts implicated the pancreas, beginning with the classical observations of von Mering and Minkowski that removal of the pancreas led to severe glycosuria in the lower animals, up to the recent observations of our American scientists,—Opie showing that of the different elements of the pancreas, the islands of Langerhans are the chief and probably the sole structure concerned in human diabetes, and Herter, that reducing bodies of any kind applied to the pancreas cause the appearance of sugar in the urine. It was also known that in animals in which the pancreas is thrown out of function, as well as in human pancreatic diabetes, the sugar accumulates in the blood instead of being oxidized, and from this accumulation results the glycosuria. Evidently, then, the pancreas is essential for the oxidation of sugar, and it might well be imagined that among the many enzymes it produces is one that has this property, but as with the muscles it has been impossible to demonstrate any such enzyme in the pancreas. It remained for Cohnheim to put these facts together; considering the peculiar change brought about in a pancreatic zymogen, trypsinogen, by the action of another ferment contained in the succus entericus, whereby the inactive zymogen is converted into trypsin, he came to appreciate the possibility of some similar interrelation of pancreas and muscles. Experiments were made along the line thus suggested; and it was readily demonstrated that although extracts of either pancreas or of muscle, made by expressing the juices of the cells by a powerful press, were practically without effect on glucose when each was taken alone, yet when combined the resulting mixture was able to destroy the sugar rapidly, and in time completely. Furthermore, the amount and rate of glycolysis shown by muscle extract is sufficient to account fully for all the oxidation of sugar accomplished by the body during the day. Putting together all the facts now acquired, it would seem that in the islands of Langerhans is formed a substance which is like a ferment in nature, as it is destroyed by heat. This substance, passing to the muscles through the blood-stream, meets in the muscle-cells another ferment or proferment, and between them a reaction occurs, resulting in the formation of a ferment that has the power of rapidly destroying sugar. This is similar to the activation of trypsinogen by the intestinal product, enterokinase, and in turn it has been shown by Delezenne that the reaction of enterokinase and trypsinogen is quite similar to combining of complement and intermediary body as it occurs in the cytolytic and bacteriolytic serums. It would seem, therefore, that in pancreatic diabetes we have an absence or a deficiency of the specific secretion of the islands of Langerhans that is necessary to make the glycolytic substance of the muscles active. Of course, this does not exclude the possibility of a similar combined effect with substances in any other tissues of the body where sugar is burned. The unknown ferment that results from the action of pancreatic and muscular zymogens seems to be specific for dextrose, for in diabetes other sorts of oxidations seem to be impeded little, if any. As Cohnheim's results, which seem to be unquestionable, are amplified, and we know more about the intermediate steps and the places of normal glycolysis, as well as the nature of the pancreatic and the muscle agents implicated, it is probable that we shall understand better than was possible before the essentials of the pathogenesis of human diabetes.—*Jour. A. M. A.*, December 12, 1903.

F. Mortimer Lawrence, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

A HOMŒOPATHIC SUBSTITUTE FOR CIRCUMCISION.—In a recent article, published as an open letter, in *Medical World*, by a member of the homœopathic profession (we prefer not to mention names), the author states that circumcision is indicated to the doctor only when he wishes an extra fee, or desires to cut. He says he would give the indicated remedy, and that he would *know* that the redundant tissue would be absorbed, and that the boy, so affected, would grow up to be a normal man, because “the remedy” will cure any abnormality that may exist in any portion of the body. He gives the indications upon which suitable remedies may be selected for a redundant prepuce. Cannabis and thuya, for example, are indicated by a history of gonorrhœa in the parents. It may seem, to some of our readers, bad taste to refer to such statements, and yet we feel very sad to think that any one would put such statements into type. It gives one a sinking sensation about the heart to read them. Can nothing be done to raise the standard of periodical medical literature?

VARIOLINUM, THE NEW VACCINATION.—The interesting article from the pen of Dr. A. M. Linn, of Des Moines, Iowa, which appeared in November *N. A. Journal of Homœopathy*, sounds less like a Utopian dream or a flight of fancy than any of the anti-vaccination papers which we have previously perused. The author writes as one who has substantial grounds for his belief. He does not claim, like some of those who have written before, that all the ills of the flesh may be traced to the introduction of vaccine virus into the human economy; but he admits the possibility of wound infection as one danger that cannot be safely overlooked. Anyone who has watched the methods of the public vaccinators, who vaccinate, for an example, the thousand employees of a large iron foundry in a single day, must feel that it is only by the grace of God that wound infection does not occur in a large proportion of the men vaccinated. Of course, this danger is due to imperfect technique, and is not usually a necessary danger of the operation when properly carried out. Dr. Linn also admits the possibility of an impure vaccine virus, and this danger is more than a possibility during such a busy season as that of last year, when it seemed almost impossible for some of our large firms to supply the demand for vaccine virus, and when the evidences of hasty manufacture were only too evident in some of the products of these firms. These

two dangers must be admitted to be real. The author, nevertheless, is perfectly willing to admit that vaccination is good, immensely better than nothing; but he does not believe we have, through it, reached the ultimate step in immunization. This sounds distinctly more scientific than the rabid utterances of some of his anti-vaccination predecessors. He wishes us to believe that the internal administration of variolinum, in potency, from the third decimal upwards, is a safer and more potent method of immunization than vaccination by scarification. In proof of the power of the variolinum, thus administered, to effect the system in the same or a similar manner to ordinary vaccination, it is stated that in non-immunized persons, in from three to ten days after administration, the following symptoms may be developed: Chilliness, backache, headache, fever, nausea, prostration, diarrhoea and dizziness. The physicians of Des Moines can offer several hundred cases whose records show that these symptoms have been produced by the internal administration of variolinum in potency. But it may be asked, "Of what use is all this unless it can be proved that such an immunization is real protection against smallpox?" The author is ready with testimony, sworn and subscribed to, showing that, after the subsidence of the systemic storm occasioned by the variolinum, the patient is really *immune to smallpox*. And this evidence is by no means the flimsy sort that has hitherto been offered to us. Dr. Edwin Schenk, in his capacity as smallpox physician, was directed by the city physician, during the recent epidemic, to study the results of variolinum immunization. He reported as follows: "I continued to keep track of all cases under treatment, and, together with cases previously treated, I found the results quite as effective as through vaccination by scarification." The investigations of the author and his colleagues have proven to him and to them that the remedy has also the power to *abort* smallpox. If administered from the date of exposure it will also check the disease before it reaches the eruptive stage. All this might seem extravagant, but it must be remembered that the truth of these statements has been demonstrated over and over again by competent observers. At a recent meeting the Iowa Homœopathic Medical Society adopted, as a resolution, the definition of vaccination as the introduction of a cowpox virus into the system, either by the mouth or through the circulation by scarification of the skin.

It will be comparatively easy for the opponents of this plan of immunization to prove to their own satisfaction whether what has been claimed for it is true or false. And they must do this, because, as we have already said, the paper contains much that is convincing and it has a decided scientific flavor.

THERAPEUTICS OF CATARACTA SENILIS.—Dr. Parentean's fifteen years' experience leads him to emphasize the following remedies:

Cannabis Sativa.—Cataracts following nervous disturbances. Psychic degradations or eccentricities of character. Abuse of tobacco, alcohol. He is deeply depressed and fears imminent blindness.

Causticum.—Cataracts in patients with a past or present history of locomotor disturbances, either of paralytic or convulsive nature.

This remedy accomplished remarkable results in three patients, two being afflicted with hemiplegia (cerebral hæmorrhage), and the other with a painless facial spasm. A dimness, grayish in color, irregular and ill-defined, had spread over both eyes.

Cineraria Maritima.—Deemed by himself of unreliable worth, and apparently indicated in traumatic cataract and that following laceration of the zonule, where it may act favorably. The cataracts are whitish, scattered about and accompanied by very rapid obscuration of vision.

He uses this remedy in massive doses, 4-8 drops of θ , within twenty-four hours, and preferably by instillation.

Conium Maculatum.—Like cannabis sat., adapted to nervous, depressed persons. He recalls the case of a hypochondriacal oculist with incipient cataract. As long as this remedy was given the cloudiness disappeared, only to recur at once on its withdrawal or alternation with another remedy.

Ledum Palustre.—Especially adapted to gouty persons. A patient under his care developed an irido-scleritis of gouty nature, and simultaneously a cloudiness of the lens. Ledum, prescribed for the former condition, to his great surprise, also markedly improved the latter. Subsequent results attest to the efficiency of ledum herein.

Naphthalin.—According to toxic effects, this remedy appears well indicated. Transient improvements only were observed, and he is aware of no special indications for it.

Magnesia Carb.—This remedy has rendered him good services in women afflicted with uterine or climacteric disturbances; likewise persons debilitated by severe diseases (cancer, syphilis, gastric or hepatic affections, etc.). Emaciation is marked; the skin earthy, parchment-like. Two cases of struma exophthalmica, with cataracts, improved encouragingly under the use of mag. carb.

Natrum Mur.—This remedy, like secale, is regarded by Dr. Parentean as his fundamental remedy. He relied implicitly upon these two in incipient senile cataract, given either alone or in conjunction.

He gives no special indications, simply mentioning the cataracts to belong to the category of simple senile scleroses, without any deeply underlying constitutional defect or any preceding injury of the structure of the eye. The appearance of the cataract is typical; it commences at the periphery with radial and distinct, though irregular, streaks. Vision remains comparatively fair, especially in good light.

Phosphorus.—An admirable remedy in patients with albuminuria, diabetes, heart disease, when hæmorrhages have occurred within the choroid and retina; the opacities are more central than peripheral, and accompanied by visual disturbances, aggravated by good illumination. A case occurring in an aged, gouty, hæmorrhoidal patient, giving no response to ledum, improved speedily under phos. selected for repeated protracted epistaxis.

Secale Cornutum.—Secale, like natr. mur., presumably accomplishes the best results in cataracts, where the crystalline lenticular dimness is dependent upon diminished interfibrillary fluidity, here restoring the volume to a norm of fluidity. Furthermore (like magnesia carb.), it seems to act preferably in women with post-climacteric uterine disturbances. Differentially, natr. mur. is called for by contracted pupil, whereas secale presents dilated pupil.

Senega has found practically no use from his hand, while, on the contrary,

Silica has been frequently employed by him. The indications are: Cataracts occurring in desk workers, literary men, who have become "run down" by laborious, persistent work, or, if engrafted, in a naturally weak constitu-

tion. The head feels heavy, attended by weak memory for words, vertigo, tinnitus aurium, gastric disturbance, hæmorrhoids and gouty symptoms at times; so, also, hectic fever in evening or night. Usually the pupils are contracted; photophobia was noted in several cases.

Sulphur.—This remedy apparently sustained the action of *natr. mur.*, especially in persons of scrofulous diathesis, with a history of cerebro-spinal disturbances, tuberculosis or uterine ailments. The general condition seems to be malnutrition.

Tellurium.—Cataracts following diseases of eyes; irido-choroiditis, glaucoma, retinal detachment, hæmorrhages, etc. He claims this remedy to possess special values as an absorbent of the infiltration in the iris and choroid, and thereby increasing the vitality of the lens and favoring retrogression of incipient cloudiness of lens.—*Allgemeine Homœopathische Zeitung*, October, 1903.

SOME RESULTS WITH REMEDIES IN DISEASES OF THE URINARY ORGANS.—Dr. A. M. Cushing relates some interesting cases in November *North American Journal*. A gentleman, aged 60 years, had been passing blood at the beginning of urination. This had been constant for two years. The author considered this case to be one of hæmorrhage from the prostate gland, and prescribed saw palmetto, in the third decimal attenuation, every two hours. In four days the patient returned, satisfied that less blood was being passed, but complaining of pain. This was a new symptom. The doctor stopped the remedy. At the end of another week the patient was well.

A woman, aged 65 years, had been suffering from profuse bloody urination, accompanied by such excruciating pain in her back that she felt that some very serious kidney lesion was present. There was much pain upon urination. Microscopic examination showed no kidney lesion, but severe inflammation of the bladder. *Polytricum juniperum*, in mother tincture, five drops to half glass of water, in teaspoonful doses every two hours, cured her. This is a sovereign remedy for painful urination in old people when the disease is confined to the bladder. For the benefit of those who do not know what this remedy is we looked it up, and found that it is probably the *polytricum juniperum*, or hair-cap moss, a moss abounding in New England. It used to be considered to be a powerful diuretic, and in infusion was credited with wonderful power over dropsy.

A man had been suffering from renal colic for several hours, in spite of remedies prescribed. Dr. Cushing prescribed *chamomilla. high.* and the pain ceased. The author remarks, however, that he believes he arrived at just the proper moment—in time to get all the glory. This is true enough. But the author has often had better and prompter results from this remedy than with *anodynes*. He mentions, in addition, that *apocynum androsemaifolium*, in the third decimal attenuation, every two hours for one week, and then four doses daily, and finally two doses daily, or an occasional dose only, will certainly prevent the recurrence of renal colic, a point which many will be happy to learn.

A SIMPLE BUT SUCCESSFUL METHOD OF TREATING CASES OF TUBERCULAR LARYNGITIS.—Dr. E. R. Johnson, of Wollaston, Mass., refers, in his article upon tubercular laryngitis, which may be read in *New England Medical Gazette* for October, to the impression which very generally prevails, that if tu-

bereculosis attacks the larynx the prognosis is hopeless. Indeed, we ourselves have had abundant cause to share in this impression, and we are therefore very much pleased to hear the author speak more reassuringly. The cases he cites in substantiation of his claims were cases marked by extensive infiltration, as well as ulceration. In each case, however, the application of formalin had brought about healing. He mixes the 40-per-cent. formalin solution of the shops, with water, until he has reduced it to a *two-and-one-half per-cent.* solution. This he applies to the affected portion of the larynx by means of absorbent cotton tightly wound upon a bent probe. This treatment was continued for months. At first every day, later every other day. It is not to be claimed that curing the tubercular laryngitis cures the patient; but, such patients cannot be cured unless this ulceration is removed. If this can be done by the formalin applications, other methods can, at the same time, be pushed to build up the patient. These applications can be made without difficulty. Dr. Johnson claims that the patients may even be taught to treat themselves. Tubercular laryngitis is almost always secondary to pulmonary tuberculosis, in which case usually but little can be done by medicines internally administered.

THE RELATION OF HOMŒOPATHIC THERAPEUTICS TO MODERN PATHOLOGY.—It has been stated in various phrases of specious plausibility that modern pathology is destroying the very foundations of homœopathy. Modern pathology is not, however, a science; it is not classified knowledge, encyclopædic and final. It is a frantic attempt to find adequate cause for all departures from health. Yesterday it was cellular pathology, more remotely it was humoral pathology. To-day it is bacteriology or surgical pathology. If modern pathology were a perfect science to-day, homœopathy would still be impregnable, for it is founded upon a law of nature as unerring as the law of gravitation. Scarlet fever is generally supposed to be due to a specific germ. This has not affected the therapeutics of this disease, save that it has caused physicians to be more careful about drugging patients, and has emphasized the need of a supporting diet. The vigorous treatment of twenty years ago is now repudiated by physicians of to-day; the latter believing generally that drugs act perniciously. The homœopathic treatment of this disease has been unchanging. The belladonna which Loomis repudiated still cures. The same application of our remedies produce the same results that they did fifty years ago. The treatment for typhoid fever in vogue twenty years ago is now generally considered to be injurious. To-day they believe that the less drugs are used the better the results. Eberth's discovery of the typhoid germ has brought no corresponding improvement in therapeutics, unless the above may be considered an improvement. Careful attention to diet and hydrotherapy have taken the place of drug intoxications. Modern pathology has seldom helped the old school to combat disease with drugs. It is astonishing and painful to contemplate that such a body of learned men should not have proved the verities of homœopathic therapeutics ere this. We are indebted to the old school for many things; for much that is useful and reliable in the practice of medicine. We are their debtors for many useful refinements in diagnosis. Their study of unchecked disease has been exhaustive and abundant. Every avenue of knowledge leading from the morgue and from the laboratory has been glutted with material. Out of this has grown, simply,

therapeutic nihilism. Modern pathology has taught nothing concerning the uses of drugs. Modern pathology has given us glimpses of the mortal combat between vital forces and morbid agents, but allopathic medication fails to support the one or to destroy the other. Before this therapeutic gulf the old school stands dismayed. Homœopathy bridges this gulf and true medical science will pass on to greater triumphs.

These excerpts are taken from an excellent paper, upon the relation of homœopathic therapeutics to modern pathology, by Dr. D. A. Foote. It was published in *Medical Century* for November.

SYMPHYTUM IN DISLOCATION OF KNEE CARTILAGE.—A man, aged 30 years, engaged in some laborious work, had a slight accident which forced a cartilage in the knee-joint from its bony attachments. He was attended by a surgeon, and subsequently, on numerous occasions, by a bonesetter: because the displacement was renewed whenever the patient had much kneeling to do. After a time he submitted to an operation, during which the cartilage was pegged to the bone. This was succeeded by much pain, which lasted for weeks. His sufferings were not ameliorated until he received a prescription of symphytum 1x, two doses daily. After this the knee rapidly improved, the swelling and pain disappeared to the astonishment of the surgeon who had watched the case, but who did not prescribe for him. This is a valuable suggestion, because, after everything had been done in a mechanical way that can be done for such cases, there frequently remains for years more or less constant discomfort, as well as the tendency to recurrence after unusual movements of the joint. The case is related in *Homœopathic World* for December.

PRIMULA VULGARIS.—Dr. R. M. Le H. Cooper found that this remedy cured a case of eczema of the scalp five inches in diameter, bright red and moist, which had presumably been caused by the irritation of a hair-pin.—*Hom. World.*

ANGOPHORA LANCEOLATA IN THE TREATMENT OF DYSENTERY.—Dr. Frederick Kopp thinks that this remedy is perhaps more promptly curative in dysentery than any of the others which we possess. It is also curative in the constipation which so often follows a dysenteric attack. It may be given in the 1x trituration prepared from the resin of the tree, or in the 1x or 2x dilutions of its tincture. The symptoms for which he prescribed it were as follows: Frequent urging to stool, tenesmus, colicky pains and bearing-down sensations, evacuations small, hard and mixed with blood. The pain and tenesmus is relieved by lying flat upon the face. This remedy is the "red gum tree," or Australian bush, and was, we believe, proved by Dr. Kopp.—*Hom. World.*

THE SURGICAL SPHERE AND INDICATIONS FOR HYPERICUM.—Dr. P. E. Krichbaum, in *Medical Advance*, has written a short paper upon the above topic which conveys some suggestions that may be new. He finds the remedy useful when corns or bunions have been injured; as, for example, by having been cut with a razor-knife that is unclean. The result is an acute inflammation of the part, with much redness and swelling, accompanied by rending or tearing pains. These pains shoot up the limb along the course of the nerves. We have seen some cases of this kind which were so severe as to be alarming, and which have really suggested "blood-poisoning." The authors finds that hypericum is quite sufficient to cure.

When parts that are rich in sentient nerves have been badly bruised, this remedy is one of our best. A fall upon the head may produce convulsions in a child. Hypericum is indicated. Falls upon the coccyx, that are followed by tearing pains shooting up and down the lower limbs, may suggest the same therapeutic agent. Another condition wherein this remedy may prove an aid is in an ascending neuritis after a fracture. The muscle will emaciate from below upward, outlining the course of the nerve, accompanied by severe pain. A patient of the author's suffered for a long time from a distressing pain in the arm, the result of a fracture. The member had become much emaciated, and its muscles were flabby. Hypericum cured this case. When we remember how frequently patients, who have fractured a bone, complain for years of distressing pain in or near the seat of the original injury whenever the weather changes or whenever they make any unusual physical effort, we may be glad to remember that hypericum is a remedy that promises to help such cases. The richness of our pathogenetic records in therapeutic suggestions is truly amazing. It is wonderful how much there is in our materia medica that has never yet been utilized in practice. Dr. Krichbaum prescribes hypericum for leucorrhœa in children, when the discharge is milky and corroding. Also for the urethral difficulties of women who have worn pessaries for a long time, and in whom the urethra feels hard, like a rubber tube. Also, in enuresis, when the child *shudders* as the desire to urinate comes on.

FOR HABITUAL EPISTAXIS.—*The Southern Clinic* quotes the observation of Dr. Woodward regarding the almost absolute specificity of ammonium carbonate in habitual epistaxis, without regard to the cause, frequency of the attacks or severity. Two grains every ten minutes will stop the flow quickly, during an attack; and the same dose, given three times daily, or oftener, will correct the abnormal tendency. It has been our own observation that many cases of recurring epistaxis arise from a slight erosion or ulceration upon an atrophic spot, situated upon the nasal septum, about quarter of an inch inside the nose. Local treatment of this spot has seemed most efficacious.

TABES MESENTERICA.—Dr. J. M. Fulton relates the history of a case of this nature, which recovered under homœopathic treatment, and which ought to show how much can be accomplished by the similar remedy even under very unfavorable conditions. The lad, aged 11 years, had been under allopathic treatment for three months. He had been a healthy boy until December, 1901. There was great dryness of the skin, great emaciation, almost no flesh on the body. Great thirst, much tenderness all over the abdomen, involuntary discharges of an offensive character. The boy could not raise his head from the pillow. He could bear no fresh air. Arsenicum 6x was prescribed, and the entire body was rubbed with olive oil. After some improvement, the temperature began to rise and the lungs were affected. Sulphur 30th was followed by the expectoration of a quantity of pus. Then tuberculinum 200th was given. Improvement followed. When this improvement came to a standstill, arsenicum iodatum was given in the 3x. After this the lad gained rapidly until his weight had increased twenty-five pounds.—*Medical Century*.

NITROGLYCERIN.—The weak, nervous, tired, irritable and hyperæsthetic neurasthenic will get more relief from a few doses of this medicine, adminis-

tered occasionally, than from any other drug. When the poor woman complains of a "queer feeling in her head," and says that she is "all of a-tremble," and sinks into the first chair she can find, exhausted and discouraged, you will find that she probably has a rapid and dierotic pulse. Nitroglycerin helps such cases. If I were to prescribe for a case of gastralgia to-morrow, I should first think of nitroglycerin, providing the patient was anæmic and had a feeble circulation. Even should it be necessary to first give an anodyne, nitroglycerin would still be a good remedy, probably the best, to prevent a recurrence. It is the mainstay of many physicians in asthma. I have used it freely for the past eight years in asthma, and with the happiest results. I find that the tablet composed of glonoine 1-50, strychnia 1-50, and morph. sulph. 1-20, the quickest and surest palliative I have ever known for this agonizing disease. I used nitroglycerin in one case of Jacksonian epilepsy, where it seemed to accomplish results that could not be gotten from other drugs. The girl was anæmic and her circulation was poor. The same remedy acted very well in a case of chronic epilepsy.—W. B. Webb, M.D., in *Clinique*.

CATARRHAL APPENDICITIS.—The word catarrhal, as applied to appendicitis, may be correct enough pathologically; but it is a bad one to use in speaking with patients. It leads them to underestimate the possible gravity of even the mildest appearing case. It must be always remembered that there is danger until the attack is entirely over, and that a diagnosis of "simple catarrhal appendicitis," followed a few days later by the need of an undertaker's services, is a poor advertisement for the doctor.—Dr. Gatchell, in *Medical Era*.

POISONING BY BROMOFORM.—While it is not at all probable that any homeopathic practitioner would care to exchange the uncertainties of bromoform, in a case of pertussis, for the certainty of therapeutic effects to be obtained from our own distinctive remedies, yet we think it worth while to refer to the poisonous effects which followed the administration of a dose of bromoform that had been given to a 4½-year old child in the hospital service of Dr. A. L. Oberdorfer. This child had taken the dose mentioned for one week without ill-effects being produced, but on the second day of the second week of its administration the doctor was hastily summoned to the bedside of the child. He found her comatose, with a rapid and feeble pulse, the respiration stertorous and shallow, the muscles relaxed, the pupils contracted and insensitive to light, and the conjunctival reflex was absent. Later on, she became cyanotic, after vomiting, and respiration almost ceased. The first sign of returning consciousness came fifteen hours after the beginning of the attack, although treatment had been heroic. As no urine had been passed up to that time, three ounces were withdrawn by catheter. It contained albumin, a few hyaline casts and a number of red blood-cells. The urine was normal upon the fourth day after this. The author is inclined to think that the poisonous effects were due to the decomposition of the bromoform, which had stood for some time unprotected from the light. It had separated into two well-defined layers: the upper one, of an oily, viscid consistency, was transparent; the lower layer was of a muddy color.—*Archives of Pediatrics*.

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CHRONIC CATARRH OF THE MIDDLE EAR.

BY PERRY DICKIE, M.D., BROOKLYN, N. Y.

A VERY large number of the cases of diseases of the ear—in fact, the greater proportion of these troubles—which the aurist is called upon to treat, may be included under the heading of “Chronic Catarrh of the Middle Ear.”

By the laity in general, and the medical profession to a large extent, this disease is regarded as little short of incurable. This, however, is certainly a too pessimistic view of the situation, since sufficiently encouraging results have been obtained by treatment in many of these cases to brighten an outlook so apparently gloomy. That such an impression has gained ground is largely due to the fact that so many persons afflicted with this disease defer consulting the aurist until such a late stage has supervened that a cure, or in some cases even an amelioration, of the condition is not possible to be obtained; hence, for this reason, it has acquired the reputation of being incurable.

While this failure to relieve the condition can and does happen in the case of all diseases, still it would certainly seem that the chronic aural catarrh patient waits longer than any of the others before applying for treatment. But, notwithstanding the reputation chronic aural catarrh may possess for intractability to remedial measures, yet, as a matter of fact, great relief is possible to be obtained in many cases, as a rule, in its early stages, yet some that have well progressed, and which at

first seemed practically hopeless, have been very much relieved by treatment.

Therefore, the possibility of obtaining satisfactory results in this disease demonstrates the fact that we cannot always make an accurate prognosis until we have tried what can be accomplished by treatment.

The cause of chronic catarrh of the middle ear may be attributed to several factors; but in all cases we will find invariably a latent weakness existing in the auditory apparatus, which acts as an agent in predisposing these organs to the action of the extraneous influences that set up this condition.

The inherited form of chronic aural catarrh we find arising as an offshoot of the various dyscrasias, of which the gouty and rheumatic are the most potent in causing this disease—although all pathological conditions are so capable of exercising their bad influences—especially in those cases where the ears are the points of least resistance. What has been termed, for want of a better name, the “uric acid diathesis”—a condition arising from the non-elimination of the excretory waste products of metabolism—has also been attributed as a cause of chronic aural catarrh, and in the opinion of the writer we may justly consider it to be the root and origin of a very large number of these cases. More than half—it is estimated 60 per cent.—of these cases owe their causation to naso-pharyngeal diseases, which invade the tympanum through the Eustachian tube and set up this catarrhal state.

Another prolific factor in the ætiology of the disease in question we find to be a closure of the Eustachian tubes from any cause whatever, and thus preventing the aëration of the middle ear; we have as a result a pathological condition arising in the tympanum, and which in all cases causes an impairment of the hearing to a greater or lesser extent.

Of the many other causative factors of chronic catarrh of the middle ear may be mentioned: catching frequent colds, the effects of bad climate, exposure to unhygienic influences, as a sedentary inactive life, lack of fresh air or exercise, unsanitary environments, the use of tobacco and alcohol, cold bathing, etc., all of which it is claimed may become influential agents in the ætiology of this disease.

In many cases we find chronic aural or adhesive catarrh the

sequence of an exudative catarrh of the middle ear, but the question here arises whether we have not had beforehand a condition tending to produce this trouble, and of which the exudative form is but the early stage, to be invariably followed by the adhesive catarrhal condition. Again, at times, this disease seems to arise from apparently no cause whatever; however, its possible causes are so numerous that we cannot designate any one as a special factor capable of setting up a chronic catarrhal condition in the tympanum.

Turning our attention to the pathology of chronic catarrh of the middle ear, we find here occurring in the membrane of the tympanum a round-cell infiltration and connective-tissue formation, with also a swelling of the substantia propria, which is later on followed by a partial or total transformation of these products into fibrous tissue. As a result of these changes the recesses of the fenestra ovale and rotunda, also the attic, with even, at times, the whole tympanic cavity, are encroached upon by this tissue formation, resulting in a partial or complete obliteration of these structures. This overgrowth covers the stapes and malleo-incudal articulation, which ultimately causes an impairment of the mobility of the ossicles and a resulting ankylosis of the parts. Besides these abnormal conditions already mentioned, we have of frequent occurrence adhesions existing between the membrana tympani and the inner wall of the tympanum. Consequently, as a result of all these changes in the tympanum, there must of necessity be produced an impairment of the hearing which varies in extent according to the involvement of the sound-conducting apparatus, due to which changes its vibratory functions are interfered with. Likewise, a derangement of the hearing also may be caused by an adhesion of the ossicles to the walls of the tympanum, or the result of an ankylosis of the ossicular joints, either from the formation of fibrous or osseous tissue in these locations.

Of these deformities we would consider the lesser evil to be an ankylosis of the malleo-incudal joint, inasmuch as the hearing need not be injuriously affected by the existence of this condition. However, that lesion which we must consider to be the most serious, as well as the most disastrous, to the hearing is an ankylosis of the footplate of the stapes in the fenestra ovalis, since the hearing must inevitably suffer from the exist-

ence of this formation. While nearly equaling the above conditions, if not fully so, is the presence of pathological growths encroaching on or occluding the foramen rotunda, which is often the seat of a hypertrophic thickening of its membrane.

In many of these cases, and with but few exceptions, there is an accompanying involvement of the Eustachian tubes—especially apt to be so where we have naso-pharyngeal affections present. In these cases we have a hypertrophic condition of the tubal mucous membrane with a thickening of the submucous tissues, and as a result there ensues a stricture of the tube to a greater or lesser extent, according to the severity of the existing pathological process.

Whatever labyrinthine complications that occur in chronic catarrh of the middle ear, especially in its early stages, are to be attributed rather to a pressure of the footplate of the stapes upon the structures of the internal ear. Nevertheless, although it is a fact that there exist a free anastomoses between the vessels of the tympanum and the labyrinth, still, when internal ear involvements are present, they should be ascribed rather to pressure than to circulatory derangements.

The symptoms that occur in chronic aural catarrh are few, but what they lack in quantity do they as a rule make up for in quality. Of these, tinnitus and deafness are the two most important and always present symptoms in this disease, and it is often a question to the patient which of the two is to be considered the greater evil. However, taken as a whole, probably the most annoying symptom of chronic aural catarrh is the tinnitus or subjective sounds, since patients will tell us that they can bear the deafness, but “the noises in their head,” as they express it, are often beyond their endurance.

The old theory that a tinnitus of high-pitched sounds indicated an involvement of the labyrinth, while that of a low tone pointed to a disease of the tympanum, is without foundation and is a thing of the past. Modern ideas on this subject lead us to assume that a high-pitched tinnitus indicates a lesion in the short fibres of the basilar membrane or the outer part of the cochlea, while in the case of low tones we attribute to an abnormality situated in the long fibres of the basilar membrane in the inner part of the cochlea.

Tinnitus in the early stages of chronic aural catarrh is prob-

ably due to simply a pressure of the footplate of the stapes into the oval window, and is caused by the various pathological conditions existing in the tympanum or middle ear; but, later on, when the internal ear becomes involved in the process, this symptom may arise from a general derangement of the circulation of the labyrinthine structures. When this trouble is due to an increased labyrinthine pressure, as a result of pathological changes in the cavity of the tympanum, a relief from the tinnitus is possible by means of inflating the middle ear or rarefying the air in the external meatus. Tinnitus may consist of an intermittent type, but when we find it continuous it is apt to be due to a secondary involvement of the labyrinth by the existing pathological process in the tympanum. These subjective noises are aggravated by many causes, as dampness, bad weather, the use of alcohol or tobacco, during the existence of a cold or coryza, after mental worry, bodily fatigue, or nervous excitement, and, as a rule, when the patient is generally indisposed. In short, any agent will start up these noises that tends in the least degree to promote a disturbance of the circulation or lower the bodily tone of the person.

Pain in the ear is a rare symptom in chronic aural catarrh, but when it does occur we may ascribe it to the existence of an intercurrent inflammation in the middle ear, and in which case we usually find various signs indicative of this disease manifest in the *membrana tympani*.

Again, there may be, and often is, present, a hyperæsthesia to sound, which is sometimes quite extensive, and is especially so in the case of loud or shrill noises. In addition, we often find in these cases various troublesome symptoms in the head, as fulness, weight, pressure, inability to concentrate the attention, weak memory, etc.

Deafness is the chief symptom of chronic catarrh of the middle ear, and is always present to a greater or lesser extent. When the impairment of the hearing is due to a lesion of the middle ear, we have a condition that consists of simply a faulty conduction of the sound-waves to the labyrinth; but when the internal ear is involved in this process, a lack of perception by the nerve structures may also enter into the trouble. The severity of this symptom must depend entirely on the amount of obstruction that exists in the sound-conducting apparatus, and whatever changes that have taken place in the labyrinth.

Extensive changes and variations in the hearing are not common in chronic aural catarrh, although certain factors tend to exercise an influence in this condition, as weather, climate, fatigue, bodily health, etc. This impairment of the hearing do we find occurring in a very marked degree for the human voice than to other sounds, and for which the patient, in some cases, may possess a comparatively fair amount of hearing.

Inspection of the membrana tympani in chronic catarrh of the middle ear reveals a condition of a most varied description, of which the following are some of the more common abnormalities which we may expect to find existing in this structure: The most frequent and characteristic lesions that are found occurring in this disease are what are termed "opacities," consisting of areas of from a slight cloudiness to a complete opacity of the membrana tympani, which may include from a very small spot to the whole of this structure. In appearance these opacities present a tendon gray color, or that of frosted glass, a condition termed "ground-glass membrane." In shape these abnormalities are diverse, and as to location may occur in any part of the membrane.

Pathologically, these opacities are due to a form of tumefaction, round-cell infiltration, and new cell formation of connective tissue, which results in a thickening of this structure to an extent considerably beyond the normal. These formations may sometimes consist of calcareous deposits, due to a calcareous degeneration of the already formed exudation into the substantia propria of the membrana tympani; but, although these lime deposits may occur in the adhesive diseases of the ear, they are, however, more common in the chronic suppurative forms of the disease.

Atrophic spots in the membrana tympani appear as somewhat irregular shaped areas, usually of a darker shade of coloration than in the normal structure. These spots may be often mistaken for cicatrices, which are the remains after the healing of perforations, but which differ from atrophic spots in their more sharply defined edges; while in the case of the latter their margins shade gradually into the surrounding structure. Both these formations may so closely resemble perforations as to often mislead the casual observer, and sometimes require a close observation to differentiate, even on the part of the trained aurist.

Another class of lesions frequently happening in this disease are adhesions of the membrana tympani to the inner tympanic wall. These abnormalities occur in a variety of forms and extent, consisting of from a small, circumscribed area, to an involvement of the whole membrane, which is closely adherent to the inner wall of the tympanum, while the membrana tympani will present the appearance of yellow parchment, through which the various contained structures of the tympanum may be plainly outlined.

Retraction of the membrana tympani is of common happening in chronic catarrh of the middle ear, and when this condition exists we find on inspection the malleus apparently foreshortened and always displaced backward and upwards; also, in addition, there is frequently an accompanying elongation of the posterior fold of the membrane.

In a large majority of the cases of chronic aural catarrh we find the external canal dry and deprived of its cerumen; however, in some cases, a contrary condition of affairs may be present, and this secretion is found in considerable quantity in the canal.

Chronic catarrh of the middle ear runs an irregular course, as manifested by its symptoms, especially the impairment of the hearing, and which depends entirely on the progress of the pathological process. During its course we may find irregularly occurring spells of aggravation, improvement, or a stationary condition of the disease. As to the amount of deafness that may ensue in this disease, when the lesion is confined to the tympanum, the hearing is not, as a rule, likely to become entirely lost; but when we find a very great degree of deafness present, we may assume that there exists an involvement of the labyrinth. This latter state of affairs, when present, is manifested by characteristic symptoms, such as subjective noises, dizziness, vertigo, etc., and is often found occurring as a complication of chronic aural catarrh, liable to arise from such causes as taking cold, the effects of noises, traumatisms, cerebral diseases, old age and syphilis.

When but one ear is the seat of chronic aural catarrh there is a very strong likelihood—almost, in fact, a certainty—that in time the other ear will become involved in the process; in which case the lesion is of rapid progress, and the second ear ultimately becomes the most affected.

In a large number of cases of this disease we find the deafness in a permanent state, or gradually increasing; still, there may occur improvements of varying duration, which we may attribute to a form of degeneration and absorption of the newly formed tissue, or else a lessening or removal of the impaired tension in the sound-conducting apparatus.

Chronic aural catarrh may be complicated by various acute conditions which arise in its course, such as inflammation or suppuration of the middle ear, and which can never other than be resultant of injury to the hearing in a greater or lesser degree.

When, on examination, we find various marked alterations in the membrana tympani, such as retractions, opacities, calcareous deposits, thickenings, atrophies, etc., the diagnosis of chronic catarrh of the middle ear is attended with no difficulty. From these appearances, together with the several tests for the hearing, besides the subjective symptoms experienced by the patient, will lead us to determine the seat of the disease, whether it is confined to the sound-conducting apparatus, or if it also includes the labyrinth as well. The use of the tuning-fork is a most important diagnostic agent in determining whether we have existing a lesion of the sound-conducting or sound-perceiving apparatus. Weber's test is only of value in these cases in one-sided affections, and where the hearing is not entirely lost in the deaf ear.

In the determination of air and bone conduction we find, regarding the former (air conduction), failure of hearing for the low tones, while high tone perception, as a rule, is not so much affected, except in cases where the disease is present in a very severe form. While for the latter condition (bone conduction) we find that its perception is lengthened in duration, except in the case of persons over 60 years of age. Where, however, there is an existing involvement of the labyrinth, this test is of no value, inasmuch as the ability for bone perception is either impaired or lost.

By means of Siegle's speculum we ascertain the presence of adhesions between the membrana tympani and inner wall of the tympanum, as well as other similar conditions of this structure of an adhesive character. Thinned or atrophic areas of the membrana tympani bulge out on inflation like balloons, or

on testing with the Siegle's speculum move when adhesions do not exist; but, on the contrary, when these abnormalities are present the membrana tympani remains unaffected during these procedures.

The prognosis of chronic catarrh of the middle ear, until of late, has been regarded as unfavorable by all aurists—and is so still in the opinion of some who are not willing to give the necessary time and trouble to the case. True, in a disease such as this, we have a condition consisting of structural tissue formation, which is not possible by any means to restore to the normal state. However, a favorable termination that occasionally happens to aid us is the occurrence of a fatty degeneration of the round-cell formation, by means of which we may obtain a partial repair of the damage that exists. Therefore, in some cases of chronic aural catarrh we may hope to accomplish a considerable amount of relief with a resultant improvement of the symptoms; still, except in its early stages in many cases, if we can but retard the progress of the disease it will be all that we can do. But in all cases a long period of time, a year or more, is essential for treatment to accomplish any good results.

A favorable prognosis may be hoped for when the impairment of the hearing has not yet reached a very high degree of severity, and when there is not to any great extent an involvement of the auditory nerve, which is demonstrated by the impairment of bone conduction on testing with the tuning-fork. Also, we may consider the future of the case to be more hopeful, if subjective noises have not yet appeared or are only present to a slight extent, and then not continuous.

Another very encouraging factor in the prognosis of chronic catarrh of the middle ear—in fact, in all aural diseases—is the ability to obtain lasting improvement of the hearing, as well as the tinnitus, by the inflation of air into the tympanum. When a beneficial result such as this follows inflation, we may expect to accomplish a certain amount of relief. When, however, a contrary state of affairs exists, and inflation is of no benefit, as well as in the case of elderly persons, also the strumous, tuberculous, syphilitic and anæmic, besides when the patient's occupation or condition in life is unhygienic, in such cases as these we may consider that any amelioration is not likely to be accomplished by treatment.

Chronic catarrh of the middle ear is a disease that has ever been the bugbear of the aurist. That it has become less so is simply due to the fact that, by means of modern therapeutic methods, it is now comparatively amenable to treatment, if not for its cure, at least for its relief. However, it is not possible to accomplish satisfactory results unless we are provided with ample means to cope with a disease possessing the obstinacy and tenacity of the one we have here. The physician who would practice otology successfully must have the proper apparatus so essential to carry out in all its details the modern treatment of diseases of the ears.

The suggestions contained in our text-books regarding the sufficiency of a meagre equipment for the treatment of ear diseases is misleading to the physician, as well as a wrong on the patient, and cannot but end in results that are disastrous to both. Hence, it is no wonder that, with the following out of the usual economical advice, that chronic aural catarrh has proved an incurable disease to so many.

Until within the last few years the sole therapeutic resort of the aurist for the treatment of this disease has been Politzer's bag by our "regular" brethren, and the graphites bottle by the homœopathic school; and when these failing the patient has been discharged as incurable.

Certainly, without doubt, politzerization has always been and must remain a measure of the greatest value in the treatment of diseases of the ear, in combination with other remedial factors, but to attribute to it such panacea-like properties, as has been done in the past, is as unreasonable as it is unscientific. While regarding the use of graphites for the treatment of this disease, so highly extolled by some of the homœopathic school, it certainly seems incredible that this drug should have received such a reputation, in the face of the fact that it is the unanimous opinion of all who have tried it, that for chronic catarrh of the middle ear it is of no value whatever.

There are, however, several factors that are of the utmost importance in the treatment of this disease, without the observance of which therapeutic measures cannot be of any avail. A strict hygienic system of life must, at all times, be maintained by the patient who would derive benefit from treatment.

All irregularities must be corrected; unsanitary environ-

ments must be improved; a proper diet is to be followed out; alcohol, tea, coffee and chocolate must be entirely abstained from; meat should be eaten sparingly and not oftener than once a day; and last, but not least, plenty of water should be drunk. All these are absolutely essential points to be observed if we would have our treatment to be of any avail. Cool sponge bathing in the morning, followed by a brisk rubbing with the crash towel, or the warm bath at night, both insure a healthy function of the skin and are to be recommended as valuable adjuncts; but at no time should the cold plunge bath be indulged in, not only by patients who are afflicted with chronic aural catarrh, but, in fact, by any human being who values his health.

Too heavy clothing should not be worn, but the underwear should, at all times, day and night, be of woollen wear, of a thickness suited to the season; however, never too heavy, which is a common fault in the use of this fabric. In fact, the clothing should be just sufficient for comfort, since anything beyond this is liable to weaken the patient and create a tendency to take cold.

We all recognize the necessity of removing all abnormalities that are present in the nose, naso-pharynx and throat. These corrective measures may not always cure, or even relieve the existing trouble in the ears; but we may certainly rest assured that with these abnormalities present there is no possibility of accomplishing any relief of the disease; therefore, on principle, their removal is a necessity.

An occlusion of the Eustachian tube also must be overcome, as an absolute essential, before any relief of the hearing can be obtained. This may be accomplished either by means of inflation with the Politzer bag, the Eustachian catheter, or the bougie. If these measures are not effective we may then resort to Eustachian electrolysis.

Warm vapors nebulized into the tympanum through the Eustachian tube often result in much improvement. For this purpose we use: menthol, turpentine, camphor, eucalyptol, tar, iodine, benzoin, ammonium chloride, iodide of potash and pilocarpine. These agents through their stimulating action cause a more or less mild degree of inflammation, by means of which process the swelling of the tympanic mucous membrane and

submucous tissues is caused to subside, when sometimes, even in the organized fibrous formations, there is brought about a degeneration with a consequent reabsorption of these pathological products.

This form of treatment should always be preceded by a catheter inflation, to dilate the Eustachian tubes which may be more or less occluded, to be followed immediately by the passing of the medicated vapors through the catheter into the middle ear.

Another very efficient therapeutic agent for the treatment of chronic catarrh of the middle ear we find in pneumo-massage. By means of treatment with this factor beneficial results have been obtained in many cases, which before its discovery were regarded as beyond the possibility of relief. The employment of this valuable therapeutic measure, however, must be carried out with common sense and discretion; likewise, it must be accompanied by other remedial factors, and when it is used under these conditions we may expect much good to follow its application.

Treatment by means of hot air is a comparatively new measure, and although not by any means a panacea, still it has proved a valuable agent in chronic aural catarrh. This method is carried out by means of several apparatuses now in the market, all of which are efficient if used properly. The degree of heat employed to obtain satisfactory results should be from 200° to 300° F., and at a pressure of from five to six pounds. Its application at each sitting should be carried to such a degree of temperature and continued so long only as the patient can tolerate it, but never to exceed five minutes at a time. The treatment should be administered not over three times a week for two to three months, and then discontinued for a time to note results.

The use of hot air has proved a very successful measure for the treatment of chronic catarrh of the middle ear in a large number of cases, and when carried out properly we may expect beneficial results from its use, even, at times, in cases that at first may seem to be absolutely hopeless as to any possibility of obtaining relief.

Electricity, in the form of the high frequency current, has been used for this disease and has given good results in some cases. This method is of value, both in involvements of the

labyrinth as well as lesions of the tympanum. The employment of this comparatively new electric current, while no doubt a very successful factor for the relief of these cases, yet the great cost of an apparatus for this kind of work will probably tend to limit its use to a considerable extent by the general practitioner.

No general directions can be given for the use of the high frequency current in ear diseases, but surely a knowledge of the principles of electricity is essential for its safe employment, and which, when acquired, the results that follow its application will repay one for the time and trouble so expended.

Regarding the employment of surgical measures for the relief of chronic catarrh of the middle ear, the past history of otology has been marked by numerous rash and ill-advised experimental operative procedures, presumably aiming to benefit this disease. Although in a few cases short periods of alleviation from the tinnitus have resulted, or slight betterments of the hearing have been obtained for the time, from these measures, yet in none of the cases operated on have any conditions of permanent relief been gained, since these symptoms have invariably returned, not only to their original state of severity, but in some cases even to a worse degree, and absolute injury to the ear has been the result of these procedures.

However, to the credit of the modern aurist, we can now say that these unwarranted measures are things of the past.

As for the remedial treatment of chronic catarrh of the middle ear, it would certainly be too much to claim that internal medication alone could cure a condition such as this; but, when employed in combination with other measures, mechanical and local, the use of drugs will surely aid to a very great extent.

The following remedies have been recommended for the diseased condition in general, and have often proved of value, but indications for their use are lacking: Arsenic iodide, the various preparations of calcium and fluorine and silica, gold chloride, mercuric iodide, potassium iodide, strontium iodide and thiosinamin. While for the internal ear involvements are advised chenopodium, ferrum picrate, quinine and salicylic acid.

Inasmuch as the newly discovered element, radium, has been used with some success by Dr. William Harvey King, of New

York, in a case of neuritis and atrophy of the optic nerve, it therefore suggests itself to us for diseases of the ear with involvement of the auditory nerve and labyrinthine structures, a process that we believe to be of a very similar character. This, however, is a new agent, which time alone will determine its value.

But unfortunately, however, what relief we may obtain from the treatment of chronic catarrh of the middle ear, except in its early stages, is not always apt to be of a permanent nature. Since it is possible for the disease to recur from various causes, such as taking cold, or, in fact, any influence that would tend to lower the condition of the system.

Therefore the patient who is in a stage of this disease that has progressed to any extent, and who desires to retain the integrity of his hearing, must undergo treatment at least twice a year, preferably in the fall and spring. By following out a systematic course of treatment such as this, the progress of the disease may be counteracted and its recurrent attacks be thereby prevented, as well as being the means of preserving whatever benefit that has already been obtained from these measures.

THE PROPHYLAXIS OF DISSOLUTION.

BY O. S. HAINES, M.D., PHILADELPHIA.

(A Talk before the Washington Homœopathic Medical Society, December 18, 1903.)

I AM very fearful to-night, gentlemen, that you may think me of that class of mankind who delight in the assumption of a censorious attitude towards their fellow-men, and who are at their best when they are criticizing the actions of others, instead of mending their own faults and improving their own methods. I beg you to believe that I am nothing of the sort, but, on the contrary, am inclined to see the perfections of my friends contrasted with my own imperfections. Here we confront you with a matter that concerns the whole homœopathic school. A matter that concerns the future, the growth, the perpetuation, even the very existence of our school of medicine. It is a matter that surely has not been thoroughly under-

stood nor appreciated by the whole school. If you will glance about you I think that you will observe in some quarters a placid indifference as to whether our school keeps or is dissipated. In other directions you may perceive distinctly the evidences of another sentiment which cannot be better expressed than by the sentence: "The sooner,—the better." Among some members of our school the feeling is very strong that we are jeopardizing our future outlook by a neglect of the study of pathogenesis and by a neglect of the principles and practice of our therapeutic science. Unfortunately, it is only too apparent that the members of our school who have felt this way about the matter have either manifested a strong disposition to keep silent or have run off by themselves, as it were, so that their influence has not leavened the whole mass of the profession as it should have done.

The man standing upon the shore in time of tempest and danger sees a great ship drifting dangerously near the rocks. He shouts: "Who will man the boats to save her?" I know that it is not the man who shouts that does the saving. It is the strong arms of the men who row the boats out to her. They are the men who do the real work. Still, the one who shouted did something, if he but awakened a desire to save, and if he but stirred up others to a full realization of the needs of the occasion.

In a recent article I was bold enough to claim that the continued success of the homœopathic school, and the perfectness of its future existence, as a distinct school of practitioners, will depend upon the growth of a class of homœopathic physicians who shall be recognized readily by three general characteristics.

First.—They will show the keenest interest in every real advance of modern medicine. Especially will they feel an interest in every real improvement in either physical, chemical or bacteriological diagnosis.

Second.—They will have cultivated discriminating minds. They will be quick to recognize the special therapeutic needs of each case. They will know that every case does not need a medicine.

Third.—*They will have found out*, for themselves, that there exists no better, surer, nor more certain method of selecting

curative remedies, for those who need drugs to cure them, than the rule of drug-selection known as the homœopathic law.

This essay will perhaps suitably finish the previous paper.

Two important points appear in the above claim which I think need, or deserve, recognition. The fact that we do not claim for *similia similibus curantur* the position of an infallible law of cure, adapted to the needs of every case of illness, and exempt from even the possibility of failure. We were content to say that it was the best, surest, most certain method by which curative remedies may be selected for those cases needing drugs to cure them.

And, in the second place, we claimed that this class of homœopathic practitioners who are to perpetuate homœopathy *will have found out* for themselves that this method is the best one to follow in actual practice. It will not then suffice that they shall *believe* that it is good. Belief is not always a matter of personal experience. It may be a blind worship of ancient traditions. Belief does not always imply personal investigation and practice.

It seems to me worth while to further inquire: "*How* shall they have found out the truth of this important fact?" The answer seems easy enough. "They shall have found it out by a systematic study of pathogenesis, and by the complete substantiation of their therapeutic deductions, at the bedside." The profession, at large, do not believe that this fact is true, because they have not studied pathogenesis systematically, and have never substantiated our claims in actual practice. That is the explanation. Neither have they ever proven the falsity of the fact. They *believe* it is nonsense.

If, then, it is by such a systematic study of pathogenesis, with bedside substantiation, that one may come to a firm conviction or knowledge of the truth and utility of this method of drug selection, it follows that the neglect of this study must leave one in comparative ignorance of the truth, which ignorance can never be satisfactorily replaced by a belief or by a faith, in principles, be the latter never so strong.

And now we are prepared to make our first charge, and we hope that you may be able, to-night, to convince us that we are in error. The homœopathic school has practically given up the

systematic study of pathogenesis. They have taken up the systematic study of many other branches of medicine and surgery, but pathogenesis has been dropped, save in the curriculum of the colleges. I know that I challenge your indignation by making this statement. I expect that you will point me out quite a number of eminent practitioners in the school who have been devoting, and are to-day devoting, especial attention to this important study. But we shall remain silent while you do this, feeling sure that you will soon conclude, and that then we could mention many as eminent members of the profession who have and are to-day quite indifferent to the importance of the study, for every one that you have pointed out.

There are those who see in the present-day tendency to relegate the method of similia to the background, while another method of drug-selection takes its place in the first esteem of the homœopathic practitioner and specialist; nothing more serious than a passing "fad." They say it is a whim of our practitioners and specialists, just now, to select some prominent medical man either here or abroad, and to worship his methods as ideal and to regard his words as inspired. And that, in turn, the younger generation simply fall into line with the faddists. I should not like to be so discourteous as to speak thus lightly of a matter that has a much more serious foundation than the passing fancy of practitioners for the new and the sensational. There are those who see, in the present-day tendencies, an effect of the spirit of commercialism dominating a learned profession. I would not dare to believe that this is a true observation.

It is a consummation, natural and inevitable, that our school must cease to exist as a distinct school of therapeutics unless we adopt, without delay, the prophylaxis of dissolution. We see but little hope for homœopathy in the future, because so few of its coming adherents are willing to take up the study of pathogenesis, which is the foundation of a knowledge of materia medica. I mean are willing to take up this study seriously and systematically. It will not matter how many hospitals we have, nor how many colleges, nor that we have fifteen thousand practitioners enrolled under the banner of similia. The homœopathic school is based upon the single fact that the method of drug-selection, expressed by similia, is the best method known. The method of greatest utility in practice. In

order that one may practice according to this method, one must have an intimate knowledge of the pathogenetic effects of drugs upon the human system in health. The homœopathic system of therapeutics was founded and grew upon the study of pathogenesis. It reached its second century of success because of this study. It will die; simply because of the gradual cessation of this study among its professed adherents.

Perhaps some of my hearers may think that this would be a good thing for the medical profession and for the world at large. I am not of that opinion. I do not believe that the method of drug-selection known as *similia* will ever cease to be a very large part of the therapeutic methods of every physician, just as it is to-day, and has ever been. But I think it will be a sorry day for mankind when the practice of selecting remedies by this method shall be left to those who care less for accuracy in prescribing than we do, and when this method shall be so carelessly practiced as to be worthy only of place among the other empiric methods.

Perhaps you will tell me that I am in error in regard to this matter. Perhaps you will tell me that the practitioners of our school *have* found out for themselves that the application of remedies according to the rule of *similia* is the best and surest method of adapting curative drugs to diseased conditions of the human system. You will perhaps tell me that I am assuming too much when I dare to claim that this method of applying remedies to abnormal condition is dying out among us, or is being supplanted by other methods to a very large extent.

I pray that you will convince me of my error, if error it be, but we will ask your attention to some *evidence*, the contemplation of which has been the main cause of our assumption of the position which we have taken to-night.

Why is it so very difficult to-day to awaken, in the average young homœopathic practitioner, an interest in the systematic study of pathogenesis and *materia medica*? Why does he shrug his shoulders and laughingly reply: "I have not the time, it is so difficult." Has he found an easier and a better way by which curative drugs may be selected? Is there a better and an easier way? Is there a surer way of selecting curative remedies for the sick who need remedies?

Why is it more difficult to-day to find one well-equipped, earnest, competent teacher of materia medica, than it is to find one dozen satisfactorily equipped teachers of any other branch or specialty of medicine or surgery?

Why is it that the consultant of to-day almost invariably finds that the attending physician having *tried* and found wanting several remedies selected, we are told, by the method of similia, has abandoned that method and is selecting his remedial measures by another method than similia?

Why is it that in the discussions of our medical societies we hear so much laudation of remedial measures selected by other methods than similia, and so little commendation of the measures which similia furnishes? Why has empirical prescribing taken the place of the method of similia?

I tell you, gentlemen, that the answer to every one of these questions is the same. The homœopathic profession has abandoned the study of pathogenesis and materia medica. We have abandoned it to such an extent that the average young practitioner *does not know* to-day that the method of drug-selection, which is the basis of our school, *is* the best and surest method. He thinks remedies selected empirically, or upon hearsay, are more certain. He thinks it is easier and more certain to treat his cases experimentally, than according to a definite law or rule of drug-selection, based upon the positive effects of drugs on healthy humans. He thinks that hygiene, surgery and the *vis medicatrix naturæ* are dead sure things, while the curative action of the homœopathic remedy is something quite uncertain and unreliable.

And as the natural result of the abandonment of this study our adaptation of curative remedy to abnormal condition has become increasingly imperfect and incomplete. Dissatisfaction with the results of such imperfect practice of our method is only the next step. And the substitution of another method in our practice is merely the third step.

If things go on as they now are going, what reasonable future hope can there be for our existence as a distinct school of therapeutists?

We must have some guiding law in therapeutics. If it be not similia, then let us hunt farther for the law. We must have some guiding law or rule in therapeutics. If it be not

similia, if similia be nothing but one useful method of adapting drugs to abnormal conditions, then let someone tell us what the law is or shall be. If similia be the law of therapeutics, or even the best law that has been announced up to the present, or even the best method extant for adapting remedies of a medicinal kind to conditions of illness, then it becomes our duty to do all that lies in us, to enlarge the scope and perfect the application of this law or method; in all cases of illness that are of such a nature that medicinal measures will suffice for their removal or cure.

The man who has not found out that there exists some law or guiding principle by which he can make his therapeutic art an exact art is a skeptic.

There is not the slightest danger of the homœopathic school being *killed*. It has withstood every method of attack that the human mind could formulate. Persecution, by individuals and the State, vituperation, ridicule, misrepresentation—it has withstood the whole list down to the inauguration of the State Examining Boards, which latter have proven to be just the opposite of what they were intended to be,—a stimulant instead of a depressant.

No, it cannot be killed, but it may die. Nothing remains long at a standstill. Everything must either advance or retrograde. Dissolution begins where growth ceases; and the growth that determines the stability of either a nation or of a school of medicine is the growth of the individuals composing it, not the growth numerical, but the growth integral,—the advance in strength, in ability, in power to do.

I pore over the majority of our periodical literature every month. Our magazines are as good as the magazines of any other school, as a class, in so far as the discussion of scientific subjects of general interest to the profession are concerned. But when you come to the discussion of the distinct principles and methods which give our school an excuse for its separate existence, they are not all satisfactory. Some journals do not contain half a dozen articles a year relative to the principles or the art of homœopathic prescribing. And in some of them an article that indicates original study or research, or even thought, upon pathogenic effects, or *materia medica*, or therapeutics, is as unusual and as surprising as a dividend from gold-mine stock.

The prophylactic for decay—deterioration and final annihilation—is, then, work, progress, advancement; and, when we take the case of homœopathy, it will be work, advancement, improvement, progress, in the special department of therapeutics upon which our school rests, as upon a foundation.

The individual advances and individual accomplishments of its practitioners will determine the progress and advance of the school as a whole.

The subject is so vital and so essential to our future integrity as a school, that I feel as if I had said only too little, and had said it only too haltingly. Too much cannot be said in defence of the position which we have to-night assumed in regard to this matter.

Quite a proportion of the members of the medical profession feel to-day that there is really no reasonable excuse for the separate existence of our school as a sectarian medical body. They feel this way, and not from any ulterior motives do they urge the coalescing of the different schools. They simply have seen the lack of original work, the lack of any radical advance in our therapeutic methods from year to year, and the increasing interest of our school in all other directions save the one distinctive feature of our own, the proving of drugs and the application of pathogenesis; and they therefore say: You evidently have found that your method of applying drugs is simply one rule of many that you have learned to follow; why insist that this one method, that you use so seldom, and have not elaborated to the position of a method that can supersede other methods? why insist that this one method justifies the assumption of a sectarian attitude or position? Come and join us and, dropping all distinctive or sectarian positions, be simply physicians, using all that is likely to be of service to suffering humanity. I say the motives which actuate many of those in favor of amalgamation are rational and pure motives. We deserve the rebuke that is conveyed in the invitation to cease talking about the value of that which we regard so lightly, and be simply what we are,—physicians practicing medicine according to *any* therapeutic method which promises to be effective.

But we must not do this. We must find out that our method is the best, we must practice that method. We must take up

the study of pathogenesis in some systematic manner. Perhaps I may be permitted to suggest one way that I have found easy and excellent.

Then, too, we would place alongside of the abandonment of the study of pathogenesis and materia medica, as an additional element of danger, the positive and unmistakable disloyalty of some of our school. This is a harsh term, I do not like it; but there is no other word that expresses what we mean as well as this one—disloyalty.

Our school is sometimes disloyal to its own colleagues, hospitals and institutions. This is either manifested openly, or whispered in secret. Every homœopathic practitioner owes loyal allegiance to homœopathic institutions. Their disloyalty to the medical societies is shown either by an utter indifference, or as criticism of matters, which the simple presence and active participation of the critic would go far to overcome and correct.

This disloyalty is manifested by an indifference to the vital principles of our therapeutic science. It is also manifested by the disassociation of the brethren upon such a flimsy pretext as the relative superiority of one potency over another potency.

I feel that I can speak freely here in Washington. I know that I stand in the presence of an audience whose fidelity to the cause, and whose loyalty to their alma mater and to homœopathic institutions, has never been questioned.

“It was discovered some time ago that a musical note of a certain pitch, electrically produced, will kill all the mosquitoes within the range of its sound. The note in question is that known as ‘D——.’ Perhaps it is allied to the big, big ‘D——’ of lyric fame. This slow music, it seems, is fatal to low forms of life. Perhaps it has been this very ‘D——’ that has been sounded by so many individuals when talking about the homœopathic materia medica and about homœopathic institutions, that has been prejudicial to certain higher forms of life and growth. Let us cease sounding the lethal ‘D——.’”

Honest, frank criticism is a wonderful stimulus to growth, if it be offered in a friendly spirit. We have, perhaps, a right to criticise homœopathic institutions and methods in this way, if the dominant thought is improvement of the same. But the

homœopathic practitioner must not criticise them in any other way. He owes allegiance to them, and must earnestly guard and preserve the interests of his school and alma mater.

Let us start, if you please, with the *belief* that the method of drug-selection which we are striving to perfect *is* the best method and the method of greatest utility in practice.

Now let us endeavor to *find out for ourselves* whether this belief is founded upon truth and fact.

Not at the bedside, nor in the busy office hour, but in the quiet of our studies, when opportunity offers, let us take up, one by one, the commoner remedies—those in most frequent use.

Starting with the physiological action of the drug, in large or poisonous dosage, we obtain, by reading and rereading, a fair idea of the organs and tissues of the body upon which that drug exerts an especial or selective action. Such information can be found, not in any one book, I am sorry to say, but in portions it may be culled from many of the text-books which you have or can consult. The *Cyclopædia of Drug Pathogenesis* will go a great way with you in the study of many drugs. The old school books upon materia medica and physiological materia medica will help one.

Then we have learned what portions of the organism are principally affected, what changes are principally produced in organs, tissues and functions, and the mode of the undoing.

If one were to stop here in his studies, he would have strange fancies regarding the therapeutic uses of drugs. He would conclude, for example, that any case of pneumonia that had passed to the stage of red consolidation of lower lobes, with imminent danger of cardiac failure from breaking down or degeneration of heart tissue, would be the place for the exhibition of phosphorus.

And if he stopped here in his study of the corrosive mercury, he might feel that he needed no other remedy for chronic nephritis than merc. cor. But this sort of study does not by any means give us a knowledge of the individuality or peculiarity of the drug effects, whereby we can distinguish one kidney irritant from another and one lung irritant from another. Next we proceed to study the provings. If we can come upon the records of the provers recorded as they experienced the

effects, we may get a better idea of the peculiarities which distinguished the effects of the remedy in its different spheres of selective action.

If we cannot come upon the day-books, we can at least get comparatively full pathogenetic records in the larger *materia medica*s.

In almost every sphere of action, certain symptoms recur and recur in the different provings, until they may fairly be considered quite constantly associated with the peculiar action of the drug in that sphere.

And, again, certain symptoms and conditions recur so frequently and occur in so many *different* spheres of the drug's activity, that we may fairly conclude that these latter are very constant effects of the drug, under many different circumstances.

I think, as one goes on in such a study, he gradually absorbs the idea of a drug's action in health. He learns its selective spheres of activity, he learns what changes it produces in these spheres, he learns the phenomena which accompany its effects, he distinguishes those symptoms which recur oftenest in each sphere of action, as well as those which recur in several or many spheres of its action. He gradually perceives its individuality. What he has missed or failed to observe, the *materia medica*s call attention to; and, from his studies, he can readily appreciate the accuracy of these observations of other students.

Some men have the ability after such study to picture, in words, the individual and peculiar features of a drug's action, so that it stands out distinct from all its kind. These word pictures are very distinct to them. They are tolerably distinct to all those who have followed the remedy through its gross physiological effects up to its finer symptomatic expressions. They are as Greek to the man who has never studied the drug in some such systematic way. Even, I might say, ludicrous reading to such a man.

All along the way we have been hampered in our study by the incompleteness of the recorded provings, but not more so than by the incompleteness of the recorded histories of the poisonings and by the careless statements regarding the physiological actions of the various drugs, and regarding the structural alterations produced during these physiological effects.

I am not by any means inclined to damn the *materia medica* as utterly useless and unreliable because of its imperfections. It is regrettable; but by no means does it render the records unworthy of the study and attention of the twentieth century student. A bridge is a bridge. Some bridges are works of art, beautiful in symmetry and perfect in details. Others are unsafe in spots, not good to look upon. You may safely cross the stream on either, if you are a careful traveler, and keep your eyes on the path. And why damn the bridge, if there be no other way across the stream? While the hypercritical and censorious traveler is standing on the bank, making uncomplimentary remarks about the construction of the ancient edifice, he forgets that it has passed thousands safely to their destination, and will pass him as well, if he but starts upon his journey.

By all means let us have a new bridge, but let us not be halted at the brink as long as there is no new one, and a very serviceable, albeit ancient, structure at our command.

The Individuality of the Remedy.—If we beginners in *materia medica*, for we are all of us mere dabblers in the vast ocean of pathogenesis, could so learn it that we might be able to recognize the homœopathicity of drug to patient, not alone from our memory of drug-symptoms as they stand in the books. If we might perceive the homœopathic relationship of drug to condition—as something tangible—something that comes to us through *all* our senses. Something that we could feel, and see, and touch, and smell and hear,—a real, tangible entity,—so that we could, when we approach the bedside, be conscious through all of our senses that we were standing in the very atmosphere or presence that called for a certain drug. I say I wish we might so learn the *materia medica*. It can be done. It can hardly be taught, but it can be accomplished by the man who enters upon the study of this branch of medicine with all his heart. Heaven forbid that any one should attempt to simply commit to memory the long lists of isolated and disconnected symptoms that are placed under the various headings in our books; without, at the same time, striving to get at the genius, the individuality—the almost personality of the remedy. And the beginner should first of all strive for this individuality of his drugs; after that he may penetrate the labyrinths of symptoms that have been produced in the various spheres of its pathogenetic selection.

All the while that the student has been pursuing his studies in some such way as we have imperfectly outlined, he has been making therapeutic deductions from what he learns. He sees, or fancies that he sees, in the effects of a drug, certain features which *should* make it useful in certain disease effects, accompanied by peculiarities in the symptomatic accompaniments which would fit the peculiar symptomatic expressions of the drug's action. He may put these deductions to the practical test at the bedside. If his bedside application of his knowledge is accurately performed, and if he finds that the method of similia is not the best and truest method, then he should run quickly and amalgamate. But he will not find the method faulty if he applies it aright, and if he applies it in those cases which really need such remedial measures for their alleviation or cure.

This is the prophylaxis of dissolution. The general awakening of the entire homœopathic profession to the vital necessity of a systematic study of pathogenesis and materia medica, and the loyal allegiance of every alumnus to his alma mater and to homœopathic institutions wherever these may be. Unless the prophylactic be recognized and put into operation without delay, dissolution of the school is inevitable.

PROSTATECTOMY BY FREYER'S SUPRAPUBIC OPERATION.

BY E. H. PRATT, M.D., CHICAGO, ILL.

Professor of Surgery in the Chicago Homœopathic Medical College.

I BEG to report to the HAHNEMANNIAN MONTHLY two recent prostatectomies performed after the manner of Freyer, of London.

The patient in the first case was 64 years of age. He came to the Orificial Clinic last September, to be relieved of terrible tenesmus at times of urination, which were also very frequent. He had been using opium and cocaine suppositories for some months previous, as the straining was too great to be borne without anodynes. He had preconceived notions as to what he wanted done, so that I was not at liberty to use my own judgment in the matter. He refused perineal section, refused to have the prostate removed, and under no circumstances would

he submit to prostatectomy, but would agree to the removal of any tumor or stone that did not involve perineal section nor the removal of the prostate.

On entering the bladder from above, a small fibroid tumor was encountered, projecting from the margin of the prostate at the os vesicæ. This was removed and the bladder drained. It took some weeks to wean him from the opium and cocaine suppositories. As he passed from under their action, however, and the wound in the bladder contracted down so as to make the urethra once more needed for the passage of urine, his tenesmus increased, until he was satisfied that nothing but more radical surgical procedure would afford him any permanent relief. He, therefore, finally submitted to the idea of the removal of the prostate, which was accomplished on the 21st of October by Freyer's method. The wound above the pubis into the bladder had not entirely healed. This was enlarged until the finger could be freely passed into the bladder. The prostate was felt protruding into the bladder with the os vesicæ in its centre. While the forefinger of the right hand was introduced into the rectum and made to crowd the prostate as far forward as possible, the forefinger of the left hand was employed to tear through the bladder on either side of the os vesicæ until the prostate was encountered. The two openings were made into one by carrying the finger dissection round in front, so that the entire wound at the base of the bladder took the form of an "U" with its concavity backward. Through this opening the prostate was enucleated and removed. In places where the tissues were particularly dense, as in the location from which the tumor had been removed, a hysterectomy knife was found necessary to loosen its moorings. In the dissection the prostatic urethra was rather freely wounded, which would not have been necessary had the operation been a primary one. This wound was not drained, but washed out through the penis and through the suprapubic opening, twice daily, with a boracic-acid solution.

There was no pain or fever following the operation, and the patient has made a beautiful and satisfactory recovery. His tissues healed very slowly, owing, in all probability, to the fact that he had been so long previously saturated with opiates. The suprapubic opening is not yet entirely closed, for he leaks

a little there occasionally, but he has perfect control of urination, and it occurs at longer intervals and is free from tenesmus. He is satisfied with the result of the operation and is deeply grateful for what was done for him. The operation in this case was quite difficult of accomplishment, the difficulty being mainly due to cicatricial formations resulting from the previous work.

The second case was a private one, operated upon at the Chicago Homœopathic Hospital on the 31st of December, 1903. The patient was 79 years of age, of spare build and feeble constitution. His heart's action was very feeble. He had had prostatic trouble for many years, and had such difficulty in passing urine that an effort had to be made to evacuate the bladder by means of a catheter. This was found so difficult that soft rubber catheters could not be employed, and only a very peculiarly bent silver catheter could be introduced far enough to secure evacuation of the bladder. As its entrance was accomplished with such difficulty, the attending surgeon (in the western part of the State) decided to fasten the catheter in the bladder and immediately send him on to Chicago. He arrived here in due time with the catheter strapped into the urethra, where it had been worn for four or five days. The instrument was still *in situ* when the operation was undertaken on the 31st of December. The bladder was entered suprapubically, and as the finger came in contact with its base a cone-shaped mass was discovered protruding into the base of the bladder, with the os vesicæ at its centre. In this case Freyer's method was deviated from, somewhat, at this point. Instead of attempting to force the index finger of the left hand through the mucous membrane of the bladder—a proceeding calling for considerable bruising—the opening in the bladder was accomplished by the aid of a hysterectomy knife, under the guidance of the index finger of the left hand. An opening in the mucous membrane about half an inch from the os vesicæ was made on either side, each one being half an inch in length. Through these openings the index finger of the left hand was carried, while the index finger of the right hand was inserted into the rectum, holding the prostate well forward, and the two openings were united into one in front of the urethra, by finger dissection. In this case it was a very simple matter to enucle-

ate the prostate and detach it from its moorings. Instead of delivering it as a saddle-shaped organ, however, under the process of enucleation it was torn into halves and removed a half at a time. The substance of the gland was found to be completely studded with small fibroids. The prostatic urethra was only slightly wounded. The loss of blood was very trifling. The bladder was then thoroughly irrigated with hot sterilized water.

Instead, however, of leaving the wound open, as directed by Freyer, two pieces of rubber tubing of a quarter-inch calibre were inserted into the suprapubic opening, and the wound neatly coapted to them by means of catgut sutures. The tubes were stitched in the wound by sutures of silk. The shorter tube was introduced deeply into the bladder and was intended to serve as an entrance pipe for vesical douching. The longer tube was furnished with two or three openings in its side in the part contained in the bladder, and the other extremity was furnished with a short glass tube, to the outer end of which was fixed a waste pipe, communicating with a receptacle by the side of the bed. By means of these tubes the bladder could be douched without wetting the patient, and the dressings remained practically dry. No harm has seemed to come from the use of these tubes, and as it seems in every way more satisfactory than to leave the wound open, I cannot but regard it as an improvement upon Freyer's course of leaving the patient with a perpetual fountain of urine to soak the dressings, and keeping him in a continual bath of urine, which is anything but healthful or comfortable.

The result of the work in this case has been particularly gratifying, as the patient has had neither pain nor fever since the operation and seems to be passing on to a perfectly uneventful recovery.

As nearly as I can judge, from the limited experience furnished by these two cases, it would appear that the medical profession owes hearty thanks to Dr. Freyer for introducing it to a most eminently satisfactory and easily accomplished method of performing prostatectomy, which seems to me destined to supersede all other methods in the course of time.

THE DIET OF CHRONIC CONTRACTED KIDNEY.

BY G. MORRIS GOLDEN, M.D., PHILADELPHIA.

(Read before the Wednesday Night Medical Club.)

THERE is probably no disease, which comes under the category of chronic conditions, in which a rational handling of the diet is of greater practical importance to our patient than contracted kidney. Long before the dietetic treatments of such diseases as diabetes, gout, lithæmia and their allied conditions were instituted, the dietetics of our kidney diseases were fully recognized and practiced. Owing to this fact we have much at our command, both practical and experimental, as regards the diet of this protean malady.

Let us look for a moment at the pathological features of this condition.

It is essentially a hyperplasia of the connective tissue of the organ, gradually but surely choking off the secreting structures, and at the same time impairing the blood-supply, thereby cutting off the nutrition of our organ.

The etiological factors in the causation of these most marked changes is the result of the passage of irritants through the kidney for a long period of time, and especially those of syphilis, lead, and lastly, but not least, alcohol and uric acid, and the results of faulty metabolism.

Therefore, our chief aim must be to prolong the course of the disease as much as possible, and enable the patients to maintain their strength, to continue their work and enjoy life for years.

There is no question in my mind that the diet exerts an important influence upon the course and symptomology of this disease.

There is a marked diversity of opinion as regards the best form of diet to be carried out, but for all purposes it should be sufficient to maintain the proper nutrition, being readily digested and assimilated. It should also be varied and admit of many changes, as we are all aware of how tiresome any routine

course of diet becomes to a patient, and especially to one cognizant of a diseased condition.

We cannot prescribe or outline a special dietary that will suit all cases, for the simple reason that certain cases present certain peculiarities common to themselves; on the other hand, the stage to which the disease has advanced must be taken into consideration.

The authorities are much divided as regards the best plan of diet to be instituted in our cases of contracted kidney. The rule laid down by Saundby is a good guide, which states: "Eat very sparingly of butcher's meat; avoid malt liquors, spirits and strong wines."

As regards the absolute milk treatment, I feel that when given over a prolonged period it does harm instead of good. It may be true that milk is an ideal food for the babe, but, on the other hand, it does not contain the ingredients in proper amount and proportion, which are necessary to the proper nourishment of an adult doing both physical and mental work. Do not understand me to say that I do not believe in milk at all, for it should form one of the main articles of diet in its various forms. At times, a strict milk diet may have to be enforced for a short period, when we have marked gastric irritability, or in the presence of an acute exacerbation of the present chronic condition.

Probably the most important of the articles of diet to be discussed is that of the meats—how much, and of what kinds to give?

It has been shown, experimentally, that an exclusive nitrogenous diet is capable of causing a chronic nephritis in dogs, and Adami contends that the same condition may take place in the human subject.

We know that urea is the most irritating of the kidney excretions, and as this is the result of the ingestion of nitrogenous substances, they must be limited. But a certain amount of the nitrogenous food is necessary to the maintenance of good health. It is not the normal amount of urea and its allied substances passing through a kidney which sets up the condition of cirrhosis, but instead the over ingestion which nature cannot properly take care of. Thus the metabolism becomes faulty, and irritating products are excreted. What we wish to do is to cut down the nitrogenous principles to a point where

the metabolism is properly conducted, and the excretion of faulty products ceases. This can only be done by a well regulated nitrogenous diet and careful and repeated examinations of the urine, noting especially the total output of urea, specific gravity, combined with total quantity, and presence of albumin.

The kind of meat given matters little; the leading clinicians, as a group, state that the red meats are not more harmful than the white, and, as a matter of fact, some of the white meats contain more nitrogenous matter than the red meats. In recent experiments conducted by Kauffman and Mohr, as to the result of the ingestion of red or white meats, the conclusion was reached that, owing to the variations in excretion in renal diseases, the effect of either red or white meat on the nitrogenous excretion was six of one and half a dozen of the other; therefore, no definite conclusion. The animal broths and their many preparations are only mentioned to be condemned, as they contain highly concentrated products, which have a deleterious effect upon the heart and kidneys.

As to the amount of proteid matter ingested, Von Noorden found from experiments which were very carefully carried out that, taking 70 kg. as the body weight, from 13 to 16 g. in men, and from 11 to 14 g. in women, could be ingested without any apparent increase in the symptoms and the patients go on enjoying good health. At all events, the amount of nitrogenous substance ingested should be that amount which is conducive to the general good health of the patient and sustain nutrition at its proper mark, because, from an extremely restricted diet, a secondary malnutrition is set up, which will account for a large number of our symptoms. The fact must be remembered that our nitrogenous principles do not lie in the ingestion of meats alone, but must turn our attention to the vegetables rich in nitrogen, especially the legumens; and right here let me state that I think, as a rule, physicians disregard the vegetables and fruits and rely too much upon the milk diet to sustain their patients.

The subject of alcohol in these conditions certainly demands our attention. As a rule, alcohol should be totally restrained; a diseased kidney is more susceptible to the irritating effects of alcohol than a healthy one. We have not only the kidney to look after, but the circulatory system, and the effect of alco-

hol is well known upon the vessels. The exception for the use of alcohol is for purely medicinal purposes only, as in anorexia, or in the cardiac complications evidencing itself in the nightly attacks of dyspnœa, in which alcohol, carefully given, will often abort the attacks.

The use of condiments, and also of tea, coffee and tobacco, opens up a field for research and experimentation. As regards the condiments, they, as a rule, should be restricted until their definite effects may be determined, especially the ordinary table condiments, as red and black pepper and mustard. Of the beverages and tobacco, these, instead of strengthening the heart, tend to dissipate its strength and cause it to become irritable and lead to further cardiac complications.

The amount of water to be taken by our nephritic patient is a question of great importance. The question is, How much water should they have? Just enough to get the best results. What is the effect of water? First, it dilutes the urine, probably raising the quantity to from 2 to 4 qts. daily, especially after taking some of the mineral waters. Does this raise the total quantity of solids? No; not enough to give us any practical results. It is simply diluting the urine and giving us false ideas. The increased amount of water floods the circulation, raises the tension in the vessels—leading to early sclerotic changes—and throws increased work upon the heart, just the organ we want to save. Is it not evident to you that the prognosis of this disease depends to a great extent, if not wholly, upon the conditions and changes that have taken place in the heart and bloodvessels? With a good heart and bloodvessels they can live for years. These patients, as a rule, should take about 1 quart of water daily, or, in some cases, less. We are to be guided by the effect upon the heart, or may put them upon what is called the "Dry Diet," spoken of and used by Broadbent, where the heart complications are prominent.

In this short space I have not attempted to go into detail, but just point out a few underlying principles which should guide us in the dietetic treatment of this condition.

It will be seen that over feeding is dangerous, but that enough food should be administered to maintain the general good nutrition of our patient. The main object in this condition is not to obtain rapid, but good and lasting, results.

In closing, allow me to summarize as follows: 1. Milk should be used, and its various products, as one of our main articles of diet. 2. Meats sparingly and cautiously given, enough to maintain nutrition. 3. Total disuse of alcohol, except for medicinal purposes. 4. The more free use of the vegetables and fruits, to supply the nitrogenous principles. 5. Guarded use of condiments, tea, coffee and tobacco. 6. The judicious and rational use of water at all times.

TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

BY E. WILTON BROWN, M.D., MT. KISCO, N. Y.

(Read before the New York Homœopathic Medical Society.)

IN all of our practice there is no one condition in which we can so surely and convincingly prove the superiority of the law of similia to the usual regular physiological treatment. During my few years of practice I have never used morphine in any form for the relief of pain in rheumatism. We have a larger field of remedies to choose from, and by the exercise of our therapeutic law we are able to choose the remedy that will surely, quickly and safely relieve the severity of the pain and inflammation, without the fear of those frightful complications that are the scylla and charybdis of the regular school, *i.e.*, we fail to see so many complications and have fewer fatal terminations or long drawn out cases. Can this be proven by a series of cases?

You have already heard a careful description of the nature of this disease from my predecessor, and I shall proceed to give a few of the remedies that have proven to be very useful to me in these conditions, using only cured symptoms.

Aconite. The remedy that always appeals to us at the beginning of every acute inflammatory state is at hand. The patient has been exposed to cold, dry wind, or he has gone into a refrigerating room. He has hot pale to red swollen joints, pains shifting about, restless anxiety, crying loud with the pain; weeping and despairing of life; great palpitation of the heart, with rapid and difficult breathing. Stitches in the chest. Great thirst and scanty hot urine.

Arsenicum alb. Drawing, tearing, burning pain, worse at night; unable to lie on the painful part, relieved by motion of the part, also by external heat. Profuse, easy perspiration which leaves the patient very weak; part has to be moved by another. Fever begins to climb at 1 P.M. and continues until 2 A.M. Chill may occur at 2 A.M.

Antimonium tart. is characterized by the gastric symptoms, with white furred tongue and night thirst.

Aurum mur. Boring pains deep in the joints after the acute pain has passed, together with the mental symptoms of the drug.

Arnica. Has sharp, bruised pains and soreness of the muscles, worse 4 A.M.

Belladonna. Sudden, electric-like pains, running from the joints along the limb with deep, tearing, cutting pains in the fibrous structure; great heat and redness. Erysipelatous swelling of the joints, high nerve-tension, throbbing carotids, congested brain and dilated pupils. Hot, dry skin. Stitching, burning pains, worse in the afternoon, before midnight, talking.

Bryonia. Pale swelling, with shooting, stitching, tearing, cutting pains, as if the flesh were torn from the bones. Reddish streaks from the seat of the pains. Must keep quiet, yet at times he is compelled to move in spite of the pain which is severe, and is much aggravated by so doing. Worse at night, early evening. Sweat, with chilliness, headache, gastric symptoms, frequent with turbid urine. Delirium, talks business, easily angered, affects shoulder and hip. Hard burnt stools. Metastasis to serous membrane.

Cactus grand. Metastasis to the heart, constriction of heart, as if by an iron hand. Rheumatism of the diaphragm.

Calcarea carb. After rhus; has not accomplished as much toward resolution as was anticipated.

Cantharis. Diffusion in pain; swollen, burning pain. Hot urine, and frequent.

Chamomilla. Extreme sensitiveness to pain, mental irritability, cross. Sore, drawing pains in upper and lower limbs, tossing about and complaining, beside himself. Feels as if he had lost power in hands and feet, which feel numb, constantly moving the parts, hot perspiration about the head, one cheek red the other pale. Worse from 9 to 12 A.M. and at 6 P.M.

China. Pain in the small bones of the hands and feet, sensitive to the touch, which leaves a sore feeling. Afraid to have any one come near him, great weakness, pale face, bloated abdomen, ringing ears. Relieved temporarily by change of position. Knee most. Worse 4 A.M.

Chin. sulph. 1x. This remedy has been very highly recommended by many after the fever has taken on a steady remitting type, anticipating two hours each day. It affects the shoulder and left deltoid (fer. phos., right). Twitching, sticking, twinging pains, worse 1 A.M. This is as dangerous in physiological doses as are the salicylates, for it produces frightful and serious cerebral congestion.

Caulophyllum. Small joint of the wrist and fingers, cutting pains.

Colchicum. Tearing, burning pains in joints; jerking pains, especially small bones and tendons, also the shoulder and hip. It acts upon the periosteum and synovial membranes, producing heat, swelling and moderate redness; great sensitiveness even to the least vibration; constant chilliness even when near the stove, with hot flushes. Loss of appetite, especially if he smell the food cooking. Nausea, with yellow spots on the face. Worse at night. Skin hot, dry and rough. Usually called for after some of the more active remedies and at each new outbreak.

Colocynthus. Colicky, crampy pains, limbs drawn up. Pain in the hip, as if it were screwed in a vise. Drawing pain in the right thumb from the ball outward. Formication and numbness. Skin cold, chilliness with perspiration.

Dulcamara. One-sided pains after exposure to cold wet. Bruised, beaten feeling when standing in one position, relieved by moving about. Stiffness in neck. Worse changing from warm to cold.

Ferrum. Iron and its compounds are often overlooked, I believe, in the treatment of rheumatic conditions, yet, if a careful study is made of the symptomatology, we will find very many cases that are better and more quickly relieved by their use. All of the preparations seem to have an especial affinity for the right shoulder and the left hip. They also have the general anæmia so characteristic of rheumatism.

The fer. mur. seems to be confined in its action to the right

shoulder and elbow, with a marked, bruised and paralyzed feeling. They differ among themselves, and are all similar in some respects to rhus, inasmuch as they have the common aggravation from rest and relief by continued motion. Rhus is worse in wet weather and by getting wet. Rhus is relieved by warmth of the bed and application of heat, while the ferrum patients are driven out of bed because of the heat. Rhus has great swelling and ferrum little.

Ferrum met. Stiff neck. Pain in the neck lying on the left side. Pain between shoulders. Constant pain in back, worse lying on the part. Pain all night, relieved by rising. Jerking pain, sticking in the small of back when walking, extending toward the hip. Heaviness in shoulder-joint. Drawing, tearing, lame pain in both deltoid muscles. Lancinating pain moving or bending left arm. Fingers sore to touch, stiff and numb. Heaviness and stiffness, with numbness and cramps in limbs, upper right and lower left. Pulsating pain in head; beating and hammering. Pale face, that gets easily red with emotion; flushing. Difficult breathing, as if oppressed by heavy weight; faintness and weakness. Worse at night; lying down; open air; beginning to move. Rest better. Continued motion; walking. Rising.

Ferrum iod. This has many of the iodine pains and characteristics. Pain in small of the back, as if she had been lying in a strained position; this extends along the spine from the lumbar to the dorsal region, at night only. Right arm and shoulder feels paralyzed and bruised. Drawing in the tendons of the right hand and left foot. Weary feeling in the right arm when writing. Paralyzed feeling in left leg, extending upward. Anæmic; no fever; great debility, with emaciation of iodine. Swollen glands and bloated abdomen.

Ferrum mur. Right upper extremities and shoulder especially; pain deep in the socket, preventing motion. Paralytic pain in shoulder.

Ferrum phos. Pain in the right deltoid, worse in bed. Shooting pain from wrist to knee, worse by slightest motion; sleepless; night-sweats which do not relieve. Follows well after acon. Ankle swollen and sensitive to touch; congestive headache; restlessness, thirst, full pulse; 4 to 6 A.M.

Hamm. Local applications of hot cloths where there is great soreness.

Kalmia lat. Pains wandering from upper to lower limbs, worse by motion. Deep-seated pains, causing restlessness. Ankles painful and swollen. Pain around the heart. Endocarditis.

Ledum pal. Affects the small joints, especially lower, and travels upward; worse by warmth in bed, before midnight; motion. Not affecting the cellular structure, there is little swelling.

Lycopodium. After bry. Tearing pain in right side. Worse at 3 P.M. to 8; better by warmth. Sour belching, nausea, flatulence, constipation. Dark urine, red sand (sarsap.), palpitation, frequent flushes, dry skin.

Mercurius. High fever; quick, hard pulse; puffy, pale swelling of single joint, with tearing, deep-seated pains. Worse at night. Sour perspiration, without relief. Thick, yellow-coated tongue, foul breath. Sensitive to cold.

Oleander. Rheumatic paralysis following subacute forms.

Pulsatilla. Drawing, tearing pain, shifting from one joint to another and from one side to the other. Red swelling; worse by jarring, touch or pressure, at night, in bed. Relieved, uncovering, cold water, open air. Chilliness, with increasing pain, pale face, loss of appetite. No thirst, bitter taste. Dorsum of foot. 1, 7 and 8 A.M.

Phytolacca. Heavy aching in neck and axilla. Periosteum and tendons. Enlarged glands. Worse at night.

Plumbum.

Ranunculus. Intercostal soreness.

Rhus tox. Red, shining swelling of joints, sticking, numb, tingling stiffness. Due to getting the parts wet, overwork in damp place, getting cool quickly when perspiring freely. Worse in bed or at rest, in morning and beginning to move. Relieved by continued motion, dry heat. Restless, worse cool, fresh air; 9 to 10 A.M., 7 P.M.

Spigelia. Radiating pains. Myocardial metastasis.

Salicylate of soda. Great swelling, especially knee and elbow, worse by the least motion made by another. Cannot move himself. There should be a word of warning in the use of the various preparations of salicylic acid. They should never be used in any appreciable doses in chronic nephritis or pregnancy. Jarcoud says: "Grave consequences may result, for

it neither cures nor prevents visceral localization, but may favor production. Salicylates lower the fever and relieve pain, but hasten involvement of the myocardium."

Sulphur. After bry. and cal. c. Hot head and cold feet, or burning of the feet in bed, so that the patient has to put them out of the bed. After the stitching pains have gone and the dull, aching pressing pain remains. Synovitis with effusion. Worse 10 A.M., 5 to 8 P.M.

Veratrum alb. Jerking pains in limb; must get up in sitting position and hang feet out of bed or walk about.

Veratrum vir. Endocarditis.

Dr. Lang, of Nebraska, has written several letters upon the use of *gaultheria*, and has cited cases of magic relief; especially so in the rheumatic neuralgias.

Since the occurrence of complications involving the myocardium are so frequent in rheumatic cases, it is essential to mention some of the most useful remedies as safeguards in the treatment.

Cardiac remedies to be thought of are: cactus, spigelia, arsenic, cannabis, bell., dig., convallaria, lachesis, strophanthus, adonis vernalis, spartein.

Cerebral remedies.—Acon., arn., bell., glon., gels., nux, opium, veratrum vir.

When the patient is first in your care, the essential points to watch are the heart, pleura and brain. They are to be looked after each day, and, even when the temperature has dropped to normal, do not consider that your patient is fit to go to work, but rather look carefully to his heart, both when quiet and after he has taken some active exercise. The urine should also come in for some attention.

Management.—Put the patient to bed at once and keep him there, and as quiet as you can. Have the bed made up with only flannel blankets, and have only woolen or silk clothing next to him. Wrap each inflamed joint in cotton and bandage with flannel bandage. Keep the room above 75°. Bathe one limb at a time, and be always careful to have the room free from draughts and a little warmer than at other times.

Diet.—Cut down on the diet. Give milk, buttermilk, koumyss, junket, cottage-cheese, milk and carbonated water, bread and milk. Later, vegetable and barley soups, clam and

oyster broth. No sugar, meat, and little starch. No alcoholic beverages, but he may have lemonade or berry vinegars. One of the chief causes of renewed attacks is because we give the patient meat too quickly. Be slow about the beef tea.

THERE ARE LIMITS TO "THE LAW."

BY R. G. HIGGINS, M.D., BAR HARBOR, MAINE.

AFTER a few years' practice, conclusions naturally force themselves upon one which are not brought out in the college course. Experience is a great teacher, and has led us to believe that many of the cures which are heralded as due to certain drugs or lines of treatment are not the results of such drugs or treatment, but of that innate power which enables the system to throw off disease.

Then, too, there are diseases which are self-limited. There seems to be a cycle of events (symptoms and lesions), and when that cycle is complete the disease disappears. There are also diseases, or, more properly speaking, groups of symptoms, that are not dependent on any known pathological lesion that vanish after the administration of a drug, and the cure attributed to such, when in all probability suggestion was the "cure all."

In all such conditions their nature and history should guide us in deciding the probable means of cure. We are forced to admit that psychic impressions play an important rôle in the treatment of all diseases, and are all that are essential in many. Christian science and other sects have fully demonstrated the fact.

Because symptoms and lesions disappear after the administration of a certain treatment, it doesn't follow that the cure was the result of such. As an example, will cite a case of typhoid fever which had a delirium of monkeys at four every afternoon. Bell. was given, and in twenty-four hours the monkeys left for good.

The delirium had been present for several days, and during the second and third week of the fever. Typhoid is claimed to be self-limited. Hence any delirium accompanying it is self-limited. Isn't it very probable that the delirium got well of itself?

It is essential that we know the pathological condition with which we have to contend. (Some homœopathic opinion the contrary, however.) We also must recognize that "the law of cure" has a limited application. It is our duty to endeavor to define that limit. By so doing we will eventually remove much treatment the dominant school justly ridicule. In some homœopathic text-books you will find calc. carb., nux, coloc., etc., recommended for the pains of gall-stone colic. Now, if we have a patient with a splinter in the hand, or a fish-bone in the throat, none of us would attempt to give a homœopathic remedy for the resulting pain. The nerves of your hand hurt from the pressure of the splinter, those of the bile-duct from the pressure of the stone. Now, if you give the homœopathic remedy for the gall-stone pain (colic), give it for the splinter-pain. If it relieves one it will the other. To those who have seen relief follow the administration of calc. carb., I wish to ask, Did you take into consideration the possibility of the stone passing out of the duct? The same argument holds good in nephritic colic. Morphine or chloroform are the only things that relieve the pain.

We once saw a case of pleural effusion treated for weeks with bry. and apis. high. Finally, after the case was hopeless, thoracentesis was resorted to and a quart of pus removed. We are willing to admit that a pleural effusion will disappear sometimes under homœopathic treatment. It will do so under old school treatment also, but if it doesn't show evidence of subsiding in two or three weeks it is foolhardy to persist in such treatment longer. We firmly believe had the above case been operated after two or three weeks of unsuccessful treatment, the patient's life would have been saved. The doctor's enthusiasm for homœopathy and high potencies robbed him of his "horse sense." If he had had an abscess of the thigh he would have advised incision and drainage. As far as treatment is concerned, what difference is there between an abscess of the thigh and one of the pleural cavity? Common sense tells us they demand the same treatment.

We recently had under observation a case of fecal impaction. The patient was suffering severe, colicky pains. Did we endeavor to look for the particular remedy for those pains? Should we endeavor to find the similitum? No! As soon

as the cause was ascertained we let the pains take care of themselves and proceeded to remove the cause. Those pains would have continued just as long as the cause remained. By removing the cause the pains ceased. Abdominal effusion, whether from heart lesion, nephritis, cancer of the liver, or any other cause, when it has reached the stage of cardiac and respiratory embarrassment, needs palliation, and needs it bad. Palliation is not a part of homœopathy, but it should be a part of a physician's assets. It is a part of his stock that ought not to collect dust. In these desperate cases its use is imperative.

The foregoing examples are a few of the many that might be cited where homœopathy should not be used. It also illustrates the fact that it is essential to know the condition with which you are confronted, in order that the proper treatment may be instituted.

In certain cases homœopathy must step aside for surgical and palliative treatment. There is some good in all pathies. Don't think we have all that is good and the other fellow the bad. The time will come when the prejudice of the old school to homœopathy will have ceased. Then our allopathic brother will learn from us the curative virtue of drugs. We also will have to wipe out our prejudice and learn from him the judicious palliation of disease.

CRÆTAGUS OXYACANTHA.—Undoubtedly of little or no value in acute inflammatory diseases of the heart (the special domain of bryonia and spigelia), but rather effectual in chronic and secondary cardiac affections, functional disturbances, with flagging of muscular power, and resulting dyspnœa, anxiety, dropsical swellings; so if cardiac action becomes impaired, weakened, fluttering, slowed, irregular.

In fact, such conditions as are frequently seen in our old, debilitated people, or in young adults after violent over-exertion, or following in the wake of acute infectious diseases (typhoid, diphtheria, influenza), or obese and alcoholic persons.

Formerly, these conditions were treated with arsenicum kali carb. and digitalis (large doses). The latter generally secured temporary improvement, accompanied by increased urination and disappearance of dropsical swellings, but too often induced marked gastric irritability.

Fortunately, crætagus possesses many virtues of digitalis, without any secondary evil sequelæ or cumulative action, and may therefore be used over a protracted period without any fear of unfavorable or toxic effects. The remedial effects may display themselves rapidly, but, generally, a more or less persistent use of the remedy is requisite for permanent results. Drop doses of ^o most effectual.—*Homœopathische Monatsblätter*, November, 1903.

EDITORIAL.

HOMŒOPATHY AND THE LATEST DISCOVERIES OF SCIENCE.

PERHAPS the most remarkable progress made at the present time in the sciences can be viewed as an advancement towards the knowledge of the infinitesimally small. Although the telescope is still sweeping the heavens and disclosing distances and magnitudes infinitely great, yet, hand in hand with it, we find photography revealing stars whose existence would otherwise remain unknown to us, since the impression made upon our visual apparatus is so infinitely slight. The spectroscope unfolds for us their constitution, and again we are brought face to face with the fact that what for us may be seemingly of little significance, as far as our senses are affected by it, may be found to be of infinite importance in the wide field of Nature. The microscope leads us farther and farther into the realms of the infinitely small. The atom has lost its significance as an expression for this, and is found to be immense, when compared with its component parts. The wonderful discoveries made regarding radium, still in their infancy, open up to us vistas of unthought and almost unthinkable possibilities. The most cherished and apparently best established theories in regard to energy have been brought again before the bar of scientific investigation, and must defend their claims to correctness.

The seemingly well-authenticated possibility of imparting radio-activity to water, which can then be used successfully in the treatment of disease, as well as the constantly increasing development of serum therapy, are wonderful illustrations of the hitherto, but partially recognized, power of infinitesimals. By us, as homœopaths, these discoveries are viewed with complacency, and they are often taken as a scientific justification of our doctrine of the efficacy of the infinitesimal quantity of drug as found in our dilutions and triturations. So much is justifica-

ble. We may see in them a proof that infinitesimals, of all kinds, are capable of producing effects, but can they be regarded in any way as illustrations of the effects produced by homœopathic dilutions, or as proving their efficacy? The temptation so to regard them is great, but is it warranted? Is the similarity between these discoveries and our doctrine of infinitesimals so complete as to warrant us in finding, in the former, a scientific proof of the truth of the latter? Can we use them as illustrations of our doctrine?

The subject is one not only of great interest, but of considerable importance, for if these questions can be answered in the affirmative, then what need have we of further proof? We would then be justified in neglecting, in the future, any other line of argument, and could, without further effort on our part, draw our weapons for the defence of homœopathic philosophy from the results of such investigations made in an entirely different sphere of science. We cannot, however, venture to answer the questions as our inclination might lead us to do.

All the discoveries, to which reference has been made, lead us in this direction only to the recognition of the power of the infinitesimally small—everywhere—not only in medicine. We can consider it as scientifically proven that the size or quantity of a substance has nothing to do with the possibility of its power to act as an efficient cause. In view of the infinite in space and time by which we are surrounded, there should be, and can be, for us, from a scientific standpoint, nothing great and nothing small. Our standard for estimating the importance of objects is so utterly insignificant that it is presumption on our part to allow a thought of comparison to enter into our judgment. With this as a foundation it naturally follows that, even without actual demonstration, we would logically be obliged to acknowledge the possibility of effects from what may seem to us the infinitely small.

It would, no doubt, be more gratifying to our pride to be able to look upon all the latest discoveries of science as illustrations of our own doctrine, but we dare not; they are only illustrations of the general truth or dogma laid down above. When we seek to bring them into a closer relation to homœopathic doses, we at once meet with the one and insurmountable obstacle, that they all concern natural infinitesimals, while

our dilutions are artificial ones, and while what is true of the one *may* be true of the other, it cannot be asserted that it *must* be.

Our homœopathic preparations are either simple dilutions, or dynamically potentized drugs; in either case it is hardly possible even to attempt to compare the powerful energy constantly thrown out by radium, or the active sera, developed in Nature's own laboratory in the living organism, with our artificially prepared remedies. If they are simple dilutions, there is no proof in these discoveries that attenuation increases power, and if their method of preparation really develops a *dynamis*, then are these discoveries still less applicable as proofs, for they are entirely dissimilar. We will not deny that it is possible that, at some future time, the real effects of the manipulations employed in the preparation of our dilutions and triturations may be demonstrated otherwise than clinically; but until then, the widely different nature of the two classes of infinitesimals sought to be compared will preclude the possibility of our scientifically making such comparison. A poor argument is worse than none at all, and a truth which can only be supported on insufficient grounds had better be left unsupported.

OUR RESPONSIBILITY IN TUBERCULOSIS.

THE past year has been notable for the widespread and well-directed efforts which have been made to instruct the public in regard to the nature of tuberculosis. From the dawn of history this disease has been one of the worst scourges of mankind. Its death-rate is equal to the combined death-rate from peritonitis, appendicitis, scarlet fever, typhoid fever, diphtheria, grip, smallpox and cancer. Of the deaths which occur between the ages of 15 and 45 one-third are due to tuberculosis. Even where it does not produce death immediately, it brings about long-continued physical suffering and makes its victim a drag upon society. As Dr. Flick has said, "Consumption has been a shackle to man's progress in civilization, a mildew upon his physical evolution, and a leaven of decay to his morality."

Science has demonstrated the cause of tuberculosis to be a

pathogenic parasite—the tubercle bacillus. Several years ago Pasteur made the statement that it was in the power of man to rid himself of all the parasitic diseases. This is no longer a mere dream, but already a partially realized fact. To single out these various pathogenic organisms, and to discover the conditions which destroy them or impede their development, both in and out of the body, is the problem which confronts medical scientists to-day. As far as tuberculosis is concerned much has been accomplished. We know that the spread of the disease is due to the dissemination of the specific bacillus by means of the air, food, etc. These bacilli can be rapidly destroyed by sunlight, heat and various chemical substances, outside of the body. The power of the body itself to successfully combat and to destroy the tubercle bacillus, when a proper degree of nutrition is maintained, has been demonstrated. Brehmer, Dettweiler, Trudeau and others have shown that it is possible to maintain this necessary degree of nutrition by the utilization of three therapeutic agents—air, food and rest. We have, therefore, at our command the means of curing or benefiting those already suffering from tuberculosis, of preventing the spread of the disease, and of ultimately eradicating it entirely.

When we consider that but a few years ago there was thought to be nothing but speedy death in view for the individual who was unfortunate enough to contract consumption, we can appreciate the advances that have been made. During the past ten years the death-rate from tuberculosis has decreased 25 per cent. in the United States. This means a saving during that period of 365,000 lives in this country. In Germany the death-rate has decreased 33 per cent. in fifteen years. In England the decline has been fully as great. These facts should encourage even the most pessimistic. We know of no recent discovery, either in medicine or surgery, which has preserved so many lives, or brought so much hope and comfort to humanity, as the development of the modern treatment of tuberculosis.

The honor for this advance is divided among several men. George Bodington, in 1840, called attention to the value of fresh air in treating consumption. Brehmer, of Germany, was one of the first to emphasize the value of fresh air combined

with forced nutrition, and he practically laid the foundation for the present sanitarium treatment. He was ably seconded by Dettweiler, of Frankenstein. In 1880 came a very important advance—the discovery of the tubercle bacillus by Koch. This made possible a more rational and effective fight against the disease. In 1884 Trudeau began the construction of the first sanitarium for consumptives in this country, and demonstrated the efficacy of the fresh air treatment. Briggs, of New York, Flick, of Philadelphia, and numerous others have contributed to our knowledge of this disease.

The homœopathic school has taken but a small part in this fight against tuberculosis. Several very efficient sanatoria have been established by our men in favorable localities, and a few facts have been contributed by individual members of our school, but as a body we have done little, either to advance the knowledge of this disease or to found institutions for its treatment. Certain results naturally follow such a policy. The first of these is the presumption on the part of the profession and of the public of the inability or the unwillingness of the homœopathic school to participate in this great move for the benefit of humanity. Such a presumption is not calculated to increase our popularity or influence. The second result is that persons suffering from tuberculosis will not care to apply to homœopathic physicians for treatment, knowing that we do not have under our control proper institutions for the treatment of their disease. Homœopathic physicians are daily compelled to send their consumptive patients to sanatoria over which they have no control, and where they are often held up to ridicule. Our duty to the public and to ourselves demands that we should give this matter serious consideration. If we are to treat tuberculosis according to modern methods, we must establish in the neighborhood of this and other large cities sanatoria which may be controlled and utilized by homœopathic physicians. In the past the homœopathic profession has never shirked its responsibilities or failed to avail itself of its opportunities. Let us hope it will not do so now.

G. H. W.

INSTITUTE ELECTIONS.

OUR esteemed contemporary, the *North American Journal of Homœopathy*, has opened a discussion as to the advisability of adopting some new method for electing the officers of the American Institute of Homœopathy. As it truly states, the present method is objectionable. For several years past, we have made assertions of this kind, but no new or better plan has been suggested. Our principal objection to the present method of nominating officers lies in the necessity of starting a political campaign a long time ahead of that appointed for the meeting. This leads to no end of correspondence with members of influence who are expected to be in attendance. The candidate who comes to the convention with the most votes is practically assured of an election, for the log-rolling done at the time the members are assembled does about as much good to one party in the contest as to the other. Our main objection to the present plan relates solely to the method of nomination.

The wire-pulling and soliciting of votes at Institute meetings and at other places cannot be prevented. Americans always take an active interest in elections. Foreigners admire us for it. At the same time, it must be regarded as an unmitigated nuisance.

The editor of the *North American Journal of Homœopathy* suggests that the by-laws be so altered that in the future elections take place by mail, all members in good standing, whether regular attendants upon the meetings, participating. This scheme seems to be Utopian. But we fear that it will be a case of "jumping out of the frying pan into the fire," of changing the seat of warfare from the convention hall to the post-office. In its favor was urged that two societies have already adopted it. From what we have seen, however, we do not think the experiment in one of them was a success. Each candidate at a recent contest had numerous prominent men arraigned on his side. These sent out signed circular letters to all members soliciting votes for their respective friends. To us, the whole procedure was unquestionably undignified. One member of a society which has already adopted this plan remarked: "Aside from

the fact that our candidate succeeded, the plan was not a satisfactory one."

The plan certainly has the advantage of being democratic, which is a good thing if the electorate is fully conversant with the personal merits of respective candidates. How they can become so without taking an active interest in the society's welfare, by attending the meetings, we do not know.

Our contemporary argues that the proposed plan will abolish local influence. We believe, on the contrary, that it will increase local influence. Thus far, in its history, members of the Institute have been magnanimous in this respect. Repeatedly, Western men have been elected in Eastern strongholds, and *vice versa*. With the new plan, the local influence will invariably be exerted in districts with the greatest membership, so if local feelings should ever arise "the centre of membership" will control, and this centre must necessarily remain the same for a long period of time.

While the method proposed has some things to commend it, we feel that the Institute should not be too hasty in making such a radical change. Above all things, let it wait until the New York State Society has had sufficient experience with it to enable our National organization to decide. When those who have tried it are unanimous in expressing their approval of it, then the Institute may resort to it.

THE DIGNITY OF MEDICAL JOURNALS ONCE MORE.

AN esteemed correspondent has called our attention to what at the least may be called an undignified procedure on the part of one of our contemporaries. In its advertising pages we find the card of a physician (costing presumably five dollars per annum), the advertiser announcing himself as a "specialist" in the treatment of a certain very rare disease, and claiming to have cured five out of six cases of said disease treated by him. In the pages devoted to original articles we find a short contribution from said advertiser referring to his last case, which, by the way, turned out successfully. The author neglects, however, to give the slightest details as to the treatment he adopted

in this and his other cases, but says: "The method of giving the remedies used and the technique of treating a case of —— patient must be left for a later article." Our correspondent writes of this: "In this way the writer escapes free censure. He will never write more if business keeps good. Then upon the receipt of a ripe pumpkin, the editor fills up a space, two inches, with an editorial like this:" "During the past month, Dr. ——, of ——, has treated his sixth case of ——, making a total recovery of five out of six cases. Dr. —— has a short article in this issue in which he calls attention to its fearful mortality, and in view of his success we feel it the duty of readers of this journal, who have such cases to treat, to communicate with the Doctor."

Some people do get a great deal for five dollars.

THE RETIREMENT OF DR. HALBERT.

It is with sincere regret that we read the farewell editorial of Dr. H. V. Halbert in the December issue of the *Clinique*. Under his able supervision that journal became a leader in directing professional thought wherever homœopathic physicians flourished. Dr. Halbert is to be congratulated upon being relieved of the editorial responsibilities. At the same time the profession at large loses a valued adviser and leader. The future success of the *Clinique* is assured, however, for it will be edited by Dr. Chas. Gatchell, for many years the editor of the *Medical Era*, and who, we believe, is the senior of the editors of homœopathic medical journals. Long may he continue so!

HORACE MARSHFIELD PAINE, M.D., A.M.

THE genial presence of Dr. Horace Marshfield Paine will hereafter be a recollection in our State and National medical societies, for he has finished his work and has been called to the vast assemblage beyond our earthly comprehension. As we retrospect and think of the many men who have done the school such marked honor, we cannot but feel a pride in the

association with such self-sacrificing, persevering and truly brilliant members of the medical profession of the homœopathic school. History should be impartial and truthful in the summing up of a character. It is the belief of the writer that men of energy are selected in the various stages of the world's development for the performance of special work. I am not disposed to entertain the thought that the selection is of human origin. Dr. Paine has used his peculiar talents most successfully in accomplishing ends of the greatest advantage to the homœopathic school in the State of New York and the country at large. No State in the republic will fail to receive the benefits which his pen and personal work has done for it in elevating its standard, and at the same time to secure a dignified place with medical men, regardless of school, in places of trust and on boards of examination for tests of qualification for practice. We recall that Dr. Paine and Dr. Watson organized all of the county societies in the State of New York, and that the State society was the consummation of their energy. He was the last of the charter members of that society. It was such men as Paine, Guernsey, Watson, Talcott, Couch and Helmuth that made it possible to secure a State Hospital for the Insane more than twenty-five years ago, and with the prestige of superior success others have followed. Dr. Paine was for many years a member of the Board of Trustees of the Middletown State Hospital, and was secretary and treasurer of the Gowanda State Hospital for a considerable time, an institution he worked heroically, with others, to secure for that unfortunate class—the insane. Dr. Paine labored with all his known enthusiasm for years, failing in one place and succeeding in another, until the difficult task was accomplished of securing three State Boards, one for each school, the standard of each of which is the same, as regulated by the Regents of the University of the State of New York. This, in our opinion, is the most valuable work he performed in conjunction with his able *confrères*, for it made the standard of qualification for the homœopathic equal to the old school, as recognized by the State, and removed any slur, often freely offered, of defective education in that profession. To-day, as a result of that law, any physician coming into the State of New York for the purpose of entering upon the practice of medicine must secure credentials from the Board of Regents, and such are only given upon a test of qualification

in accordance with the standard as fixed by the same. This law has done more than that: Mutual respect between the schools has followed, and already the American Medical Association has opened the doors of admission without pledges, or humiliating exactions, to physicians irrespective of school, but of undoubted education and good standing.

He was born at Paris, Oneida County, New York, November 19, 1827, and was of English descent. His father was Dr. John Alsop Paine, with whom he took his preparatory course, entered the University of the City of New York and graduated in 1849. He practiced in Albany about thirty years, and in the beginning of his career in Clinton, N. Y. It was during his residence in the latter place that he worked during the day and drove to Utica, spending the night with ex-Surgeon-General Watson, the two extending lines, like the spider's web, over the State of New York, until a complete organization was effected. This was done for days and months. The following morning after this work each day found him always at his duties in Clinton. We should not forget the self-sacrificing, patriotic work of such men, but should ever hold them up as examples worthy of imitation—and more—as stars directing us to lines of individual duty for similar purposes of leaving an advanced condition of the school.

Dr. Paine received appreciative honors for his loyal work. He was an honorary member of upwards of thirty societies; was an ex-President of the Homœopathic Medical Society of the State of New York; and on Friday evening, March 19, 1899, at the Fort Schuyler Club in Utica, was given a dinner and loving cup by a number of the most prominent medical men of the State, in honor of his 50th anniversary in the practice of medicine. He received the degree of A.M. from Hamilton College as a recognition of his standing and meteorological investigations.

John A. Paine, M.A., Ph.D., the Curator of the Metropolitan Museum of the City of New York, one of the most distinguished interpreters of Egyptian hieroglyphics, is his only remaining brother. He has left to the credit of his existence, and as an honor to himself and to the medical profession, three sons, graduates of Hamilton College and prominent members of the homœopathic school.

M. O. TERRY, M.D.

GLEANINGS.

REPEATED TUBAL PREGNANCIES.—(Orthmann.)—The writer reports that he has operated on 45 cases in the past four years for tubal pregnancies, with 4 deaths. There were 2 cases in which the tubal pregnancy was repeated and again subjected to operation, *i.e.*, in 4.4 per cent. of the cases. A similar proportion has been observed by Engström, who observed 4 cases of repeated pregnancy in 80 cases. Zangemeister, Sens, Haret and Heikel have collected similar statistics.

In both cases the adnexa of the opposite side were in a healthy condition. There was an interval of a year and eight months, with a uterine abortion at the second month, before the second tubal pregnancy in one case, and an interval of three years and nine months in the second. One of the patients suffered in the interval from an extensive general perimetritis, and the other from a tedious salpingitis and ovaritis of the opposite side. In both these cases an inflammatory process of the pelvic peritoneum, tube or ovary seems to be of some importance etiologically.—*Centralblatt für Gynäkologie*, No. 32, 1903.

George R. Southwick, M.D.

IS CANCER INFECTIOUS?—(Bossi.)—If cancer can be transmitted from one individual to another, this should be noticed more frequently in proportion to the exposure under favorable conditions. These are especially found in cancer of the uterus and cervix, which often are present sometimes before a diagnosis is made. Actual contact of mucous membrane and hyperæmia both tend to make conditions favorable, during sexual congress, to such an infection. The writer, therefore, made careful inquiry among his own cases (180 cases), as well as among Italian and foreign gynecologists, regarding the frequency of carcinoma of the penis which could have been caused by such an infection. In this inquiry, comprising thousands of cases, not a single case of cancer of the penis could be attributed to an infection from a cancer of the cervix or uterus, an apparent proof that cancer is not infectious. The theory of a parasitic origin is very improbable. He sees no justification for the isolation of cases of carcinoma, though this is at direct variance with the views of a large number of modern investigators, as Czerny, who believes in the infectious character of cancer and in the cases of "cancer à deux." Bossi is of the opinion that cancer is in the beginning a purely local disease, which very likely may have been originally a benign affection. All chronic inflammatory affections of mucous membrane deserve careful attention, and if not relieved by ordinary methods of treatment, the diseased portions should be excised and the wound sutured, as in erosions of the cervix. The same is true in cu-
retting the uterus as a prophylactic measure. Long continued cauterization of the cervix may convert a benign into a malignant condition.—*Ann. di ost. E Gin.*, February, 1902.

George R. Southwick, M.D.

RARE CASE OF APPENDICULAR ABSCESS.—Bloodgood reports a unique case of appendicular abscess between the folds of the mesentery of the small intestines, due to the perforation of a round intestinal worm.

The patient was a girl, aged 8 years. She was subjected to three operations. The first operation was for the drainage of the abscess. The incision was made in the median line, as the tumor presented there, and a mass was found between the folds of the mesentery extending from the ileo-cæcal junction to at least the third lumbar vertebra. The appendix was obliterated in a mass of exudate. The tumor was opened and proved to be a large abscess. It was drained with gauze, and a protective pack was placed around it to shut off the general peritoneal cavity. Twenty-seven hours later, without waiting for any sign of obstruction except distention, enterostomy was performed at the upper portion of the wound. At this second operation it was definitely ascertained that obstruction had taken place from the great quantity of gauze introduced into the abdominal cavity. Two or three round worms were found in the abscess cavity. A counter-opening was made into the latter and a gauze drain introduced through an incision placed to the right of the cæcum.

The patient did well after this operation, but developed symptoms of starvation, which, in spite of rectal feeding and the introduction of food into the lower loop of intestine, became extreme by the sixteenth day, and remained till the forty-second day. The patient at this time weighed twenty pounds. The obstructed portion of the ileum did not become patent until all the gauze had been removed from the abscess cavity, and was demonstrated by the introduction of methylene blue. Two attempts at temporary closure of the fecal fistula by suture were unsuccessful. On the forty-second day the abdomen was opened and a lateral anastomosis was successfully performed. There were very few adhesions. The patient made an uninterrupted recovery after this operation, and eight weeks later weighed sixty-five pounds.—*American Journal of the Medical Sciences*, October, 1903.

Gustave A. Van Lennep, M.D.

THE GAUZE-BEARING TAPE AND THE GRAVITY PAD IN ABDOMINAL SURGERY.—Fisher, Philadelphia, has devised a method by which gauze pads introduced into the abdominal cavity during operations can be all removed with absolute certainty, and the surgeon's mind be relieved of the responsibility of accounting for every piece of gauze used in isolating and exposing the field of operation. The gauze-bearing tape is a very simple device, consisting of a white tape about half an inch in width and about three or four feet long, armed at one end with a long, blunt-pointed needle, or bodkin. One end of a piece of gauze being introduced into the abdominal cavity, the nurse quickly, and without any loss of time to the operator, perforates the other extremity with the needle and tape, and secures its edges to the distal end of the latter with a turn-over tie. After the entire pad has been packed into the cavity with the free portion of the tape trailing from the abdominal opening, other pads can be strung on the tape in a like manner, but without the necessity of securing them with a knot, the first and successive pads acting as points of fixation for those that follow. It is not necessary to take account of the number of pads thus introduced, as at the close of the operation they can all be removed with certainty upon the withdrawal of the tape.

The gravity pad consists of a large gauze pad, having concealed within its folds and fastened to its centre a lead plate measuring two by three inches and

weighing half a pound. Instead, smaller plates of metal may be held in quilted squares or at indifferent points. The pad is provided with a trailer, or may be used in connection with the gauze-bearing tape. One pad, rarely two, are required during an operation. The gravity pad is used in conjunction with the Trendelenburg position in holding back the intestines at a proper level, to permit satisfactory manipulations in the pelvis, and also act as a more or less immovable wall against which gauze may be packed to protect the healthy peritoneum from contact with infecting materials. As the author points out, weight, properly distributed, is of more importance than bulk in holding back intestines.—*Annals of Surgery*, December, 1903.

Gustave A. Van Lennep, M.D.

LOCAL ANÆSTHESIA.—Connell, Leadville, Colorado, quotes Reclus, who has done 7000 operations under local cocaine anæsthesia, and in all these cases has never met with a death that could be in any way attributed to it. He places great importance upon the following rules:

1. Never use a stronger solution than 5 per cent. or 1 per cent.
2. Always have the patient recline during the administration of the drug, and not get up for half an hour after the operation is completed.
3. Always have the patient eat or drink something before arising.

A careful search of the literature on this subject by Reclus has failed to show a single case of mishap in which these rules have been followed or approximated.

The other objection to the use of cocaine, namely, that it cannot be rendered sterile by heat, is met with these statements. Cushing says: "Contrary to the experience of many, we have found that one or two sterilizations fail to diminish its efficiency." Riley subjects properly selected crystals of cocaine to dry heat. "One hour's heating of the dried cocaine at this temperature, 302° to 320° F., does not impair its efficiency." Matas has found "that cocaine solutions can be heated up to the boiling-point for a number of times without losing their efficiency."

To diminish the danger of over-absorption of the cocaine solution in the infiltration or other methods, Braun advocates the use of adrenalin chloride before or with the injection. This plan is also valuable because of the hæmostatic and stimulating action of the adrenalin. The strength used is from 1 to 5000 to 1 to 20,000. The author has employed cocaine anæsthesia in 50 cases for various pathological conditions, and has met with evil effects in three instances. In a series of over 80 cases, in which eucaine β was employed, no such symptoms made themselves manifest. In one of his cases, where Schleich solution No. 2 was employed for the radical cure of double inguinal hernia, a sloughing of the skin of the margin of the wound on one side occurred. The other side healed *per primam*.

Among the operations performed by the author under local anæsthesia may be mentioned appendectomy, Talma operation, suprapubic cystotomy, exploratory laparotomy, inguinal and ventral hernia.—*Annals of Surgery*, December, 1903.

Gustave A. Van Lennep, M.D.

CHORDA VENEREA.—Peterkin, Seattle, in an exhaustive paper on gonorrhœa and its complications, advises massage of the prostate and seminal vesicles in acute gonorrhœa to prevent painful erections. In a series of 54 cases,

20 of which were acute primary gonorrhœas, he has followed this treatment with success. It has also been used to prevent the troublesome erections that follow the operation of circumcision. In 10 cases, of the 5 massaged none were troubled with erections. Of the 5 unmassaged, 3 were.—*Medical News*, December 26, 1903.

Gustave A. Van Lennepe, M.D.

EXCISION OF THE FRENUM PREPUTII.—Miller, Chicago, has extirpated the frenum preputii in 5 cases following laceration, during a suspicious intercourse, for the purpose of preventing syphilitic infection. The operation should be done within twenty-four or forty-eight hours after the occurrence of the laceration. The whole of the frenum cut away close to the glans penis, the raw surface cauterized with the hot iron and the lips of the wound brought together with a continuous suture. The operation is done during the course of ordinary circumcision. In one of his cases a chancre infection developed, which he blames to an imperfect removal of the frenum. He believes that at least 1 per cent. of cases so treated will be saved from the curse of syphilis. There is no positive proof given, however, that these deductions are correct.—*Medical News*, January 2, 1904.

Gustave A. Van Lennepe, M.D.

THE DANGERS OF INFLATING THE STOMACH WITH CARBONIC ACID GAS; ITS DIAGNOSTIC VALUE. REPORT OF THREE CASES WITH AUTOPSIES.—(Behrend.)—The writer reports three very interesting cases in which death ensued following the operation of inflating the stomach with CO₂ gas. Autopsies were performed in each case. The first case was in a patient 68 years old. She had been suffering from anorexia, eructation of gas, variable bowels, headache, vertigo, palpitation, dyspnoea and vomiting immediately after eating. A Seidlitz powder was administered which distressed greatly, and about half hour later she vomited a quart of blood, and in succeeding times during the next twelve hours large quantities were ejected. Twenty-four hours later she died. Autopsy revealed rupture of a bloodvessel at the base of the stomach from which the fatal hæmorrhage arose. The second patient was a man aged 73 years who had been complaining of vomiting after eating. During the examination of his stomach the CO₂ gas-test was used, and following it a large quantity of froth and a little blood were vomited. The vomiting was not severe, but rather on the order of regurgitation. The stomach did not distend well, but the CO₂ gas seemed to distress the patient until a state of asthenia was reached, and the patient died on the following day. Autopsy revealed the presence of a carcinoma of the œsophagus and stomach. The third case was that of a man, aged 52, complaining of pain just below and to the left of sterno-costal junction. Distress followed immediately on taking the powder to create the CO₂ gas, and following came on an unconsciousness which lasted till death. Autopsy revealed a dilatation of the œsophagus throughout its entire length.

The citing of these three cases seems to justify the statement that great care should be used in administering this test. It should never be applied to aged, and in the presence of any suspicion of ulcer it should be omitted.

The principal objection to this method of examination is the fact that it is entirely beyond the control of the operator, hence its liability to do mischief.—*Medical News*, December 10, 1903.

William F. Baker, A.M., M.D.

ALBUMINURIA AS AN ACCOMPANIMENT OF DIABETES.—(Pavy.)—He says, in conclusion, that the general consideration of the clinical histories shows that the albuminuria which occurs in connection with diabetes may exist for a long time without leading to the production of any symptomatic evidence of its presence. The condition is not to be looked on as affording ground for apprehension in the same manner as if occurring under different circumstances. It is evident that the albumin and the casts have a very different signification according to the condition with which they are associated.

Experience shows that even apart from diabetes they are with striking frequency met with in persons of advanced age, nothing being evident to suggest the condition. They may, it is true, be the inceptive of something that may assume later on a more developed form, yet these developments may not assume the expected proportions.—*The Lancet*, December 3, 1903.

William F. Baker, A. M., M. D.

INTESTINAL PARASITES IN APPENDICITIS.—(Hubbard.)—*Conclusions*.—An intestinal parasite causes appendicitis through its presence as a foreign body; and by its struggles may bring about a perforation and peritonitis, where otherwise none would have occurred.

Trichocephalus dispar has been proved to cause an inflammation of the appendix by injuring the mucous membrane while sucking the blood of the host.

Ascaris lumbricoides has been found with a material similar to that in *trichocephalus* in its intestinal epithelium, and, therefore, is supposed to attach itself to the mucosa of the host and thus start the processes which result in appendicitis.

Oxyuris vermicularis. No proof has been found that this worm causes an appendicitis, except in its rôle of foreign body.—*Boston Medical and Surgical Journal*, December 31, 1903.

THE RÔLE OF SODIUM CHLORIDE IN THE PRODUCTION AND TREATMENT OF ŒDEMA.—The importance of osmotic disturbance in accounting for œdema, as urged by Loeb, has been further emphasized by the results obtained by French and Italian clinicians. Œdema of nephritis has been perhaps most commonly ascribed to an inability of the kidneys to eliminate fluids which, retained in the body, waterlog it into a condition of œdema. The high blood-pressure of the renal disease might also have been considered as leading to increased infiltration into the tissues, as is supposed to be the case in obstructive œdemas, were it not that interstitial nephritis with its high blood-pressure usually has less œdema than the parenchymatous form with a lower pressure. Injury of capillary endothelium by retained toxic substances has been considered to cause abnormal permeability, with accumulation of plasma in the tissues. But none of these explanations has been at all satisfactory. Determination of the molecular concentration of the urine, by means of ascertaining its freezing-point or its electrical conductivity, has added not a little to an understanding of osmotic conditions in various renal diseases and their importance. Rather unexpectedly, perhaps, it has been found that sodium chloride excretion and retention has possibly more to do with the disturbances of osmotic pressure in the tissues than any other ingredient of the urine.

If sodium chloride is administered by mouth to a healthy individual, the elimination of the salt is found to correspond pretty closely to the ingestion.

In nephritics, however, this is far from the case. With interstitial nephritis the reaction is quite variable—in some cases the elimination increases and in some it does not, just as we have interstitial nephritis with and without œdema. In parenchymatous nephritis, however, in which the predominating changes are in the secreting cells, the sodium chloride output, generally much lower than normal, is not increased nearly in proportion to the amount taken in, and often there is no response at all. That the œdema of nephritis bears direct relation to this sodium chloride retention is shown by the effect of administration or withdrawal of the chloride from the diet of patients with œdema. Deprivation of salt nearly always leads to a marked decrease in the œdema, while administration of salt is as promptly followed by increase in the swelling. Widal experimented with one patient, and by dietetic measures alone was able to alternately increase and decrease the amount of œdema no less than nine times in a period of sixty-two days.

From these observations it would seem that in parenchymatous or epithelial nephritis the cells are less than usually permeable to sodium chloride, and the latter, accumulating in the blood, prevents elimination of water, which is retained to keep the molecular concentration as nearly normal as possible. In other words, the water is retained not so much because the kidneys are at all impermeable to it, as because they are impermeable to the salt. And, conversely, it is incorrect to assume that in parenchymatous nephritis the small excretion of solids is due to an insufficient elimination of water to carry them out. As the œdematous fluids of the tissues have been found to contain more chloride than the blood serum, it may be that the tissues have a greater affinity for the salt than has the blood, and as it accumulates in the tissue the water will accumulate there likewise.

Application of these facts to the treatment of œdema has been most profitable. A diet poor in salt has been found very effective in the treatment of the dropsy of parenchymatous nephritis, and perhaps the best of such diets is milk. The success attained by the empirical use of milk is thus found to be due principally to its low content of salt. It is not a matter of quantity or quality of albumin in the diet, for a meat diet without salt will decrease œdema as quickly as a milk diet, while the addition of salt to the milk will cause the œdema to recur rapidly. The French physicians who have given this matter its most complete test, advocate the selection of certain cows for the milk-supply and depriving them of salt, although this is not by any means essential for good results. Since the salt and not the albumin is the important factor in the diet, it is possible, by judicious choice and preparation, to secure quite a wide range of diet for the nephritic. Nor is parenchymatous nephritis alone to be benefited in this way. In cardiac dropsy, which was formerly supposed to be entirely a matter of increased blood-pressure effects, the elimination of sodium chloride is greatly impaired, apparently because of alterations in the renal epithelium resulting from the vascular stasis. Interstitial nephritis accompanied by dropsy is, of course, also to be considered in the same category, and in both of these good results have been obtained by the process of "dechloridation." In typhoid, pneumonia, and some other febrile diseases there is also a retention of chloride, whether from renal alterations or some other cause is not known. On this account it occurred to Chantemesse that the plegmasia alba dolens of typhoid might be to a large extent the result of this hypo-chloruria, and he treated several patients on this basis with

excellent results. The thrombosis itself, which he considers as rather a predisposing than an actual cause of the oedema, seemed to disappear with great rapidity under this treatment. Again, the determination of the power to eliminate sodium chloride, particularly the reaction of the elimination to changes of diet, is of much prognostic value. Courmont considers it of more value than the methylene blue test as an indicator of renal condition. Although so far this method of treatment has been chiefly utilized by the French and Italians, it promises so much relief, and is so entirely in accord with the facts already obtained, both empirically and experimentally, that we may hope for more extensive application and reports as to its limitations.—*Jour. A. M. A.*, October 31, 1903.

F. Mortimer Lawrence, M.D.

ABSCCESS OF THE LUNG FOLLOWING ACUTE PNEUMONIA.—Dr. L. Emmett Holt states that abscesses of the lungs of non-tuberculous origin are not uncommon in the autopsy room, having been met with in his experience in about 7 per cent. of cases in the autopsies upon infants and children dying of pneumonia.

Huber has twice reported to the American Pædiatric Society cases of pulmonary abscess successfully treated by operation. One was in a child 13 and the other in a child 4 years of age.

Of the two cases reported by Dr. Holt, one was an abscess in the left upper lobe, occurring two and a half months after acute pneumonia; recovery after aspiration.

The second case was an abscess in the left lower lobe ten weeks after acute lobar pneumonia. Recovery after incision and drainage.

In summarizing these two cases, Dr. Holt remarks that they both followed acute pneumonia, pneumococcus being found in both cases, the one being associated with the staphylococcus; in neither case were tubercle bacilli found.

The chief interest in these cases lies in the clinical diagnosis. Percussion gives no clue to the nature of the disease. In both cases the presence of loud, coarse, pleuritic friction sounds are of much importance. There is great difficulty in finding pus with the exploring needle.

From tuberculosis the diagnosis of abscess may be difficult, and in some cases impossible, without a prolonged period of observation. It should be remembered that abscess most frequently follows an attack of acute lobar pneumonia, that the patient may previously have been in the best of health and without any exposure to tuberculosis. Wasting is a less frequent symptom, tubercle bacilli are not found in the sputum, and the pus found by puncture contains pneumococci, but no tubercle bacilli.—*Archives of Pediatrics*, January, 1904.

C. Sigmund Raue, M.D.

A SECOND ATTACK OF SCARLET FEVER WITHIN EIGHT MONTHS.—Dr. W. A. Dunkel reports a case of scarlet fever in a child of 3 years, which he first saw on April 1, 1902.

The case was a typical one; desquamation began on the tenth day, the urine showed a transient albuminuria in the active febrile stage, and recovery was perfect. The disease was contracted from the child's nurse, who had an attack of the disease and was still desquamating.

On November 1st of the same year the child had another attack, the temperature reaching 104°, and was covered with a bright erythematous rash.

The onset had been sudden, the child having vomited and been feverish during the night. The picture of scarlet fever was well defined, the eruption not fading until the fifth day. In the meantime the tongue gave the characteristic strawberry appearance; on the seventh day desquamation was noted.

The child made an uneventful recovery in four weeks. There can be no doubt but that the first attack was scarlet fever, neither can there be any doubt that the second attack would have been considered scarlet fever had there been no previous history of this affection.

Holt mentions Kinnicutt's case of a boy of 5 years of age who had two attacks in eight months, and Pritchard's case which had three attacks in the same hospital within two years.

Ashby and Wright note a case of a lad, of 6 years, who had a typical attack, followed by a second typical attack two months later. Writers agree that second attacks of scarlet fever are rare.—*Archives of Pediatrics*, January, 1904.

C. Sigmund Raue, M.D.

THE FERMENTATION THEORY OF INFECTION AND IMMUNITY.—J. W. McLaughlin holds that infection and fermentation are analogous processes or phases of the same process, and that both are due to the operation of the same physical and chemical laws. The active, obvious cause in both processes is a micro-organism or an enzyme, which is selective in activity in that a definite relation in molecular structure must exist between the acting substance and the substance acted upon before infection or fermentation can take place. The resulting products of the process, whether they be infectious or fermentative, are antibodies which tend to inhibit or to arrest the process of which they are products. The writer believes that the manifestation of specific energy by ferment or pathogenic cells, which varies with the species and variety of the micro-organism, is a result of specific differences in molecular structure of the cells of the different classes. The specific energy of the living ferment or pathogenic cell is capable of converting substances into ferment or pathogenic products whose molecular structure does not deviate too far from the molecular structure of the cell. The forces involved in the fermentation theory of immunity are those operating in nature within and without the living organism. They are the forces which constitute motion in matter. It is seen that the fermentation theory, in many respects, runs parallel to the side-chain theory of immunity. The writer finally calls attention to what may be regarded as weak places in the fermentation theory.—*The American Journal of the Medical Sciences*, November, 1903.

William F. Baker, A.M., M.D.

DIAGNOSTIC VALUE OF BLOOD EXAMINATIONS.—According to Dützmann, a pronounced increase of leucocytes in the blood is evidence that pathological processes in the female genitalia are purulent in character. In forty cases the subsequent operation was confirmatory. In all, 165 cases were examined in which a definite diagnosis was possible. When streptococci were present, the increase of leucocytes was especially pronounced, but when gonococci and bacterium coli. they were less numerous. In peritonitis and sepsis the increase of leucocytes seemed to indicate a favorable prognosis. When the increase did not occur or when there was a diminution, death constantly followed. These circumstances probably find an explanation in phagocytosis. Staining with methylene blue favored the leucocyte count.

The above results are confirmed by Lauberburg, who says that the longer the pus formation, the more do the red blood-corpuscles diminish in numbers and the polynuclear leucocytes increase.

Schnitzler regards the method as a certain characteristic of pus collections in the organism, and thinks it especially valuable in the differential diagnosis between perityphlitis and mechanical ileus.

Wassermann was not able to demonstrate a relation between the leucocyte count and the character of the infection. The examination failed in perityphlitis.—Frommel's *Jahresbericht*, 1902.

Theodore J. Gramm, M.D.

MISTAKEN DIAGNOSIS OF PREGNANCY.—The necessity for constant alertness in the diagnosis of pregnancy is intimated in the report by Pohl (Frommel's *Jahresbericht*, 1902,) of a case of amenorrhœa in an obese, 20-year old girl, who was sustained in the belief of her pregnancy by a midwife and two physicians. Severe pains appeared at the proper time; one of the attendants said that the presenting part lay rather high, and the other proposed artificial dilatation of the os and podalic version. Pohl found the patient to be not pregnant and the uterus decreased in size. Of course, such occurrences are only possible (?) in some distant land; still, the incident suggests the necessity for making a diagnosis before treating a case, even of pregnancy.

Theodore J. Gramm, M.D.

FLOATING KIDNEY.—Mullerheim calls attention to the possibility of confusing congenital displacement of the kidney with genital tumors. It is sometimes possible to recognize the former by its shape, fixed location, firm consistency, and diminished sensitiveness to pressure. v. Rosthorn in one case mistook a kidney lying near the vaginal walls for the placenta of an extrauterine pregnancy, and in another case for an intraligamentary ovarian cyst.—*Ibid.*

Theodore J. Gramm, M.D.

PHYSOSTIGMIN IN METEORISM AFTER OPERATION.—Moszkowicz has used physostigmin in hypodermic doses of 0.5 to 1 mg. in three cases, with the result that the following day found two cases relieved, while in the third case the desired result appeared in two hours. He therefore recommends this remedy in post-operative intestinal paresis.—*Zentralbl. f. Gyn.*, 1903, 50.

Theodore J. Gramm, M.D.

DRAINAGE AFTER LAPAROTOMY.—This subject is very generally engaging the attention of operators abroad. Thomson has published his results, which show that he operated 330 abdominal sections, 14½ per cent. of which he drained. Thirty-nine per cent. of the drained cases and 9 per cent. of the undrained cases terminated fatally. From the description of the cases, however, it is evident that the cases in which drainage was used were in themselves so serious that no comparison whatever could be made with the undrained cases. His impression is that drainage in itself is not injurious, though in one case he did observe that the abdominal drain acted as a foreign body, and on its removal the patient promptly improved. His observations agree with those of other operators, that in malignant growths drainage gives bad results.—*Zentralbl. f. Gyn.*, 1903, 48.

Theodore J. Gramm, M.D.

GELATIN INJECTIONS FOR HÆMOSTASIS.—Quite a large number of operators have recorded their experience with this procedure, and have observed

that tetanus is very liable to follow. Although the gelatin solution injected by Gradenwitz, in a case of inoperable uterine carcinoma, had been sterilized in a water-bath for one hour, the patient died of tetanus in spite of tetanus antitoxin treatment, and the bacilli were found in the pus from the abscess formed at the site of the injection.—Frommel's *Jahresbericht*, 1902.

Theodore J. Gramm, M.D.

THE RECTAL ORIGIN OF SOME DISEASES OF WOMEN.—To this cause Muller refers parametritis posterior, periproctitis, pathological antifixion with dysmenorrhœa, retroposed uterus, and peritoneal adhesions. Inflammatory processes pass over from the intestinal walls to the ligaments of the uterus. He suggests a treatment with laxatives, enemata, regulation of the diet, and especially massage.—Frommel's *Jahresbericht*, 1902.

Theodore J. Gramm, M.D.

CATARRHAL ENTERITIS IN WOMEN, SIMULATING PELVIC DISEASE.—Gillmore reports fifteen cases, some of which had previously submitted to diverse and startling treatment. Several had been diagnosed by neurologists as hopeless neurasthenics. The condition is insidious in its onset, and not often the sequence of a serious disease. The patient is usually frail, anæmic, has pinched features, is melancholy and cries easily; has bearing-down sensations and soreness of the abdomen, backache, nausea, colic, and pains in the pelvis; is easily exhausted; emaciated, with good appetite; is excessively nervous and has frequent desire for sleep; says that she has no trouble with her digestive tract, and that her bowels are regular; while, in fact, there is constipation and diarrhœa alternating, and the stools contain mucus in shreds, often abundant, with masses of undigested food, a condition denied or not observed by the patient and only recognized by inspection of the dejecta. The treatment, successful if patiently applied, consisted in regulation of the diet, enemata of salt water followed by flushing the colon with water containing hydrastis in small quantities, and the use of a pill containing ipecac., kreosote, naphthol and hydrastis.—*Amer. Jr. Obs.*, December, 1903.

Theodore J. Gramm, M.D.

ELECTRICITY IN METRORRHAGIA.—Zimmern has treated with electricity thirty-six cases of metrorrhagia. He believes electricity to be contraindicated in acute and subacute purulent conditions of the adnexa and in abortion. He regards it as the best preventive for hæmorrhage from myomata, and a specific for hæmorrhagæ in consequence of aseptic subinvolution. A good result follows its use in recent endometritis, while in the chronic form, polypi, etc., the curette is called for.—Frommel's *Jahresbericht*, 1902.

Theodore J. Gramm, M.D.

CONSERVATIVE TREATMENT OF DISEASES OF WOMEN.—Eisenberg has called attention to the hot vaginal douche, a subject apparently falling into some neglect. He uses 40 or 50 litres of water, heated to 104° to 122° F., in cases of large extraperitoneal and intraperitoneal exudates. He observed the best effects in post-puerperal affections, and good results in exudates from appendicitis. The treatment is not applicable to chronic pyosalpinx. On the other hand, tubo-ovarian inflammations particularly are favorably influenced, especially with reference to the subjective condition of the patient. In chronic perimetritis and in parametric exudates the absorptive action is pronounced.—Frommel's *Jahresbericht*, 1902.

Theodore J. Gramm, M.D.

EYE COMPLICATIONS OF MEASLES.—It is a prevalent opinion, not only among the laity, but also in the medical profession, that measles is a comparatively trivial disease.

They hold that it seldom, if ever, is the forerunner or even the direct cause for any local or general complication, this with especial reference to eye complications. No doubt, this is true in the vast majority of instances. Still, in no small percentage of the cases evil consequences on the part of the eyes ensue.

The complications or the sequelæ are the more serious if the patient presents any scrofulous tendencies, or has an inherited or acquired taint of any specific infection, such as syphilis or tuberculosis. Again, ocular complications are prone to occur in the patients of the tenement districts and among those suffering from direct or indirect malnutrition with an attack of measles.

It is very convenient to consider the eye complications under two headings: Inflammatory and non-inflammatory troubles. Of the inflammatory variety we have the following: Conjunctivitis, phlyctenular conjunctivitis and keratitis, corneal ulcers, dacryocystitis, marginal blepharitis, optic neuritis, retinitis, choroiditis, and gangrene of the lids.

Among the non-inflammatory complications there are the following:

Photophobia, asthenopia of various degrees, paresis and paralysis of accommodation, strabismus in its various degrees, muscular insufficiencies and ptosis.

The superficial inflammatory complications are more often seen than the deeper seated ones; fundus complications, too, are rather infrequent. It seems, in a measure, rational to look upon the choroiditis and the retinitis as evidences of metastasis.

What the particular bacterium for measles is has not yet been demonstrated. That there is a specific organism for measles there can be no doubt.

In view of this we can regard these metastases as evidence of an active toxin, with so-called selective tendencies.—George F. Suker, M.D., *Medical Review of Reviews*.

William Spencer, M.D.

A CASE OF MONOCULAR BLINDNESS THROUGH HYSTERO-TRAUMA.—After a historical review of the pathological symptoms, resulting from traumata, demonstrated that the theory of Charcot cannot be accepted in full, but that we might expect chemical changes in the cells of brain and spinal cord through a strong emotional and material shock, the author relates the following case: He was consulted by farmer, 31 years of age, who complained of being blind in his left eye. Family history negative, except that two sisters suffer from nervous trouble and one brother from nervous loss of voice. Two weeks ago, while threshing, a grain flew in the left eye, hurting him considerably, causing photophobia and epiphora. Somewhat later, closing the right eye, he finds the left eye blind. He became at once very excited, went home crying, "my eye is lost." On examination, the pupil and light reflex were found normal. Vision of the right eye normal; of left eye O. Fundi normal. Skin of the eyelids, conjunctiva and cornea at the left side senseless; faucial reflex lost. With the left eye looking at the sun, patient saw nothing. Patient's disposition of mind was peculiarly given to much exaggerating, complains of headache, etc. Simulation could be excluded. A psychic treatment with amber cured.—E. Stocke, M.D., *Annals of Ophthalmology*.

William Spencer, M.D.

VIEWS AS TO THE COMMENCEMENT OF AND PROGRESS OF MYOPIA AND THE INFLUENCE OF FULL CORRECTION.—The author's views are based upon an analysis of 2070 myopes. Among these, 451 had their myopia fully corrected. His conclusions, which contain practically everything of value in this communication, are as follows:

He is a firm believer in hygienic measures for the arrest of myopia, and by this is meant, of course, eye hygiene. School hygiene is of especial importance in preserving good vision and in setting narrow bounds to the myopia. To a somewhat less degree it controls the progress of myopia, or at least it makes the transition to the high grades—the destructive forms—less likely, unless it has its origin in a congenital form of the affection. In the sixteenth year too great tax of the eyes should be avoided, since at this time of life myopia is apt to be acquired. In the case of girls especially, the working hours should be shorter. In individuals with myopia greater than 1.25 D. up to the twentieth, if the accommodation range is good, full correction is always advisable, that is, up to 10 D., with the vision about $\frac{2}{3}$. If the accommodation is in any degree at fault, full correction is injurious. In cases of insufficiency of the interni, full corrections should be given and prisms employed.—Seggel, *Archiv für Ophthalmol.*

William Spencer, M.D.

EUMYDRINE.—Hugo Goldberg has been making some experiments with this drug, which is nearly related to atropine. He found that in solutions of 1:100 it was preferable to the solution of atropine 1:1000, in that it produced a prompter and more effective mydriasis than the latter, and that its effects disappeared at the end of the second day, while in the case of atropine the effect persisted for several days. As compared with homatropine of the same strength, it is preferable, as it produces more complete dilatation, and does it more quickly. When used in the diseased eye its effects in this strength seem scarcely less than that of the 1-per-cent. solution of atropine. So far as the experiments went, there was certainly no evidence brought out to show that it increased intraocular tension, or, in fact, that it had any injurious effect whatever.—*Annals of Ophthalmol.*

William Spencer, M.D.

MILK IN INFANT FEEDING.—(Park and Holt.)—*Summary.*—The observations here recorded were made upon the groups of infants for periods of about three months only, and the conclusions drawn relate especially to the more immediate effects of the milk.

1. During cool weather neither the mortality nor the health of the infants observed in the investigation was appreciably affected by the kind of milk or by the number of bacteria which it contained. The different grades of milk varied much less in the amount of bacterial contamination in winter than in summer, the store milk averaging only about 750,000 bacteria per c.c.

2. During hot weather, when the resistance of the children was lowered, the kind of milk taken influenced both the amount of illness and the mortality; those who took condensed milk and cheap store milk did the worst, and those who received breast milk, pure bottled milk and modified milk did the best. The effect of bacterial contamination was very marked when the milk was taken without previous heating; but, unless the contamination was very excessive, only slight when heating was employed shortly before feeding.

3. The number of bacteria, which may accumulate before milk becomes noticeably harmful to the average infant in summer, differs with the nature of the bacteria present, the age of the milk, and the temperature at which it has been kept. When milk is taken raw, the fewer the bacteria present the better the results. Of the usual varieties, over 1,000,000 bacteria per c.c. are certainly deleterious to the average infant. However, many infants take such milk without apparently harmful results. Heat above 170° F. (77° C.) not only destroys most of the bacteria present, but, apparently, some of their poisonous products. No harm from the bacteria previously existing in recently heated milk was noticed in these observations unless they had amounted to many millions; but in such numbers they were decidedly deleterious.

4. When milk of average quality was fed sterilized and raw, those infants who received milk previously heated did, on the average, much better in warm weather than those who received it raw. The difference was so quickly manifest and so marked that there could be no mistaking the meaning of the results. The bacterial contents of the milk used in the test were somewhat less than in the average milk of the city.

5. No special varieties of bacteria were found in unheated milk which seemed to have any special importance in relation to the summer diarrhœas of children. The number of varieties was very great, and the kinds of bacteria differed according to the locality from which the milk came. None of the 139 varieties selected as most distinct among those obtained injured very young kittens, when fed in pure cultures. A few cases of acute indigestion were seen immediately following the use of Pasteurized milk more than thirty-six hours old. Samples of such milk were found to contain more than 100,000,000 bacteria per c.c., mostly spore-bearing varieties. The deleterious effects, though striking, were not serious nor lasting. At the present time there is in New York City no general sale from stores of "Pasteurized" or "sterilized" milk, so that it is here very rare for such milk to be used thirty-six hours after heating.

6. After the first twelve months of life, infants are less and less affected by the bacteria in milk derived from healthy cattle. According to these observations, when the milk had been kept cool the bacteria did not appear to injure the children over 3 years of age, at any season of the year, unless in very great excess.

7. Since a large part of the tenement population must purchase its milk from small dealers at a low price, everything possible should be done by health boards to improve the character of the general milk-supply of the cities by enforcing proper legal restrictions regarding its transportation, delivery and sale. Sufficient improvements in this respect are entirely feasible in very large cities to secure to all a milk which will be wholesome after heating. The general practice of heating milk, which has now become a custom among the tenement population of New York, is undoubtedly a large factor in the lessened infant mortality during the hot months.

8. Of the methods of feeding now in vogue, that by milk from central distributing stations unquestionably possesses the most advantages, in that it secures some constant oversight of the child, and since it furnishes the food in such a form that it leaves the mother least to do, it gives her the smallest opportunity of going wrong. This method of feeding is one which deserves

to be more extensively employed, and might, in the absence of private philanthropy, wisely be undertaken by municipalities and continued for the four months from May 15 to September 15.

9. The use, for infants, of milk delivered in sealed bottles should be encouraged whenever this is possible, and its advantages duly explained. Only the purest milk should be taken raw, especially in summer.

10. Since what is needed most is intelligent care, all possible means should be employed to educate mothers and those caring for infants in proper methods of doing this. This, it is believed, can most effectively be done by the visits of properly qualified nurses or women physicians to the homes, supplemented by the use of printed directions.

11. Bad surroundings, though contributing to bad results in feeding, are not the chief factor. It is not, therefore, by better housing of the poor in large cities that we will see a great reduction in infant mortality.

12. The observations indicate that close percentage modification of milk, although desirable in difficult cases, is not necessary to obtain excellent results with the great majority of infants, and that a certain adjustment of a healthy infant to its food is usually soon secured.

13. While it is true that even in the tenements the results with the best bottle-feeding are nearly as good as average breast-feeding, it is also true that most of the bottle-feeding is at present very badly done, so, as a rule, the immense superiority of breast-feeding obtains. This should, therefore, be encouraged by every means, and not discontinued without good and sufficient reasons. The time and money required for artificial feeding, if expended by the tenement mother to secure better food and more rest for herself, would often enable her to continue nursing with advantage to her child.

14. The injurious effects of table food to infants under a year old, and of fruits to all infants and young children in cities, in hot weather, should be much more generally appreciated.—*Medical News*, December 5, 1903.

William F. Baker, A.M., M.D.

PERITONEAL ADHESIONS.—(Reed.)—Adhesions are frequently present in association with pregnancy and labor which do not produce any serious pathological complications, and many anomalies in pregnancy occur without the presence of adhesions; yet the presence of adhesions undoubtedly produces many abortions and influences a certain percentage of foetal and placental anomalies. Sterility and tubal pregnancy may result from such conditions, and pregnancy and labor are rendered pathological by the presence of adhesions much more often than the literature on the subject indicates. Many adhesions are destroyed by the growth of the uterus, but the rupture of them may be attended with fatal hæmorrhage.

Adhesions between the movable organs and the uterus are rarely dangerous, but when the adhesions protect the peritoneal cavity from pus-pockets, either appendicular or tubal, and pregnancy supervenes, a condition of extreme danger results. The pus must be evacuated as soon as possible, as the danger of abortion is much less than that from rupture of the adhesions. When the diagnosis is made during labor, it is allowable to temporize until the termination of the case; accelerating the labor is possible by artificial assistance. When the intestines are involved (occlusion), the phenomenon, in a majority of cases, occurs between the fourth and the seventh month of pregnancy.

When ileus occurs during pregnancy and labor, the prognosis is very grave for both mother and child, but especially for the mother.—*American Journal of Obstetrics*, August, 1903.

George R. Southwick, M.D.

ACCOUCHEMENT FORCE.—(Dickinson.)—Grave operative delivery belongs in the operating room, as truly as does an appendicectomy or ruptured tubal gestation. The simple, strong, short cone of Voorhees, inelastic, thin enough to slip in, when rolled, wherever the finger will pass, is a durable, efficient and inexpensive bag-dilator. The instruments and patient are prepared in the usual manner, the vulva covered with aseptic gauze, through which a slit is made to insert a speculum; seize the cervix through it with a long, slender, clamp forceps, and then insert the rolled-up bag into the uterine cavity. The bag is then distended, and, by traction, is made to dilate the cervix, but the normal retraction and effacement of the cervix do not occur unless the uterus takes part. The action is less rapid than that of the branched dilators or the hand, and the most rigid conditions may not yield to it; yet it has no rival for induction of labor, for inertia in the first stage, and as a tampon-dilator in placenta prævia with a thick, unyielding os.

For induction in the latter months, and for inertia during labor (where other causes are eliminated, such as exhaustion, overdistension and malposition of passage or passenger), the bag comes first, then the hand, and the forceps finishes their work. For placenta prævia, the balloon for the narrow cervix that bleeds, when the head will not plug it; and for the bad cases, version, since the thigh is the surest tampon.

For brisk hæmorrhage of detachment of a normally located placenta, the greatest speed, *i.e.*, manual or uretral dilatation.

For the rigid cervix of the early months, for the unyielding girdle of the elderly primipara, for the gristly hardness of eclampsia, the powerful Bossi instrument is a great boon, and none of its imitators approach it.—*American Journal of Obstetrics*, July, 1904.

George R. Southwick, M.D.

CHICKENPOX CONCURRENT WITH SMALLPOX.—(Bourland.)—These two diseases have, the writer says, numerous occasions on which to present themselves simultaneously. Differential diagnosis was, as a rule, easy, and the following points were of assistance: (a) mild onset; (b) absence of preliminary rash; (c) rapid appearance of eruption; (d) failure of temperature to decline on the appearance of the eruption; (e) distribution of the lesions; (f) character of lesions; (g) rapid vesiculation; (h) successive crops of papules; (i) absence of secondary fever; (j) short course of disease.

In concluding his analysis of the epidemic described as chickenpox, the following points are emphasized:

1. The concurrence of smallpox in no way caused the course of his patients to depart from that of typical chickenpox.
2. Vaccinated and unvaccinated children showed equal susceptibility to infection, and the course of the sickness was the same in each class. This fact excludes varioloid.
3. None of his patients had ever had smallpox.
4. No adults were attacked, notwithstanding absence of vaccination in the majority.

5. Five of the children exposed had had chickenpox in a previous epidemic, these previous attacks conferring immunity, except in one instance.

6. Smallpox and chickenpox are distinct entities, and, though in intimate association, neither disease influences the natural history of the other.—*The Medical News*, January 2, 1904.

William F. Baker, A.M., M.D.

A LECTURE ON MEANS FOR THE PROLONGATION OF LIFE.—(Weber.)—In considering this rather trite subject, the author lays great stress on the importance of the circulation, the respiratory system and the vasomotor. Death from old age is caused by an atrophy of the tissues and organs, associated with changes in the vessel walls. The most efficient means to prevent this atrophy and prevent tissues from changing is exercise. Walking is the most natural form, for more blood is passed into the vessels, the vessels are forced to contract, and it is carried with greater force into all the organs of the body, and all tissues of the body are better nourished. The action of the heart and the breathing are accelerated. The blood is better oxidized and the tissues give off CO_2 with greater rapidity. The amount varies from one-half to three hours daily. The so-called bad weather should not be a cause for staying indoors. It is of great use to the strong to take one day a week of prolonged exercise for from four to six hours. A climbing tour of three or four weeks in the mountains offers many valuable advantages. Deep breathing is also quite essential during the walk and during periods of rest.

Great moderation in food (particularly flesh), with the thorough mastication and preparation of all foods eaten. Alcohol and tobacco are considered injurious.

Going to bed early and rising early, restricting sleep to seven hours; daily baths; regular mental and physical exercise; cultivation of cheerfulness; overcoming nervous fear; and checking the craving of unnatural appetites.—*British Medical Journal*, December 5, 1903.

William F. Baker, A.M., M.D.

THE PATHOLOGY AND THERAPY OF ECLAMPSIA.—(Stroganoff.)—The writer holds that eclampsia is infectious in character and not due to uræmia or to an intoxication of foetal origin. He points to the results of isolation of such cases in a maternity hospital, though the isolation was imperfect. The proportion of eclampsia cases to labor in 96-97 were 1 : 96.5; in 97-98, 1 : 120; in 98-99, 1 : 133; in 99-00, 1 : 150; in 00-01, 1 : 179, or an average of 1 : 144 cases. Isolation was discontinued after 01-02, and the proportion fell to 1 : 132 labors. He does not find it necessary to induce premature labor. If the attacks are controlled for 24-48 hours by narcotics, the convulsions usually cease and the foetus continues to develop undisturbed. His mortality-rate is not given. He recommends hastening delivery if the patient is in labor, the use of morphine and chloral hydrate and the subcutaneous infusion of salt solution.—*Monatsschrift für Geburtshilfe und Gynäkologie*, Bd. xvii., 1903.

George R. Southwick, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND
THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

A TESTIMONY BASED ON EXPERIENCE.—It is very refreshing to read the following candid expressions from the pen of Dr. Thomas Simpson, in *Homœopathic World*, for January. "Having practiced for over thirty-five years to my delight and constant satisfaction, along the lines initiated by Samuel Hahnemann, I joyfully bear testimony to the immense advantages which are acquired by a knowledge of the homœopathic principles in the daily demands which are made upon the resources of an ordinary practitioner in combating the multiform varieties of disease and distress which he is expected to relieve and remove. The indications for the selection of the remedy are so minute, the immunity from uncertainty which is so often felt in empirical prescribing, the speedy response to the correctly chosen drug, the gratification which follows amelioration of grave conditions by specific restorative stimulation, which the similimum supplies, all combine to entrance the beholder. The solid utility of the methods adopted surely commend them to every ingenuous and earnest physician, and inspire him with enthusiasm to make his own experience felt and adopted by all whom he can instruct and influence." This is a solid chunk of truth. To be able to bear such testimony, after a trial lasting over thirty-five years, surely goes far to prove the correctness of one's premises. The "solid utility" in practice is the best proof of the correctness of a theory.

HYDROCOTYLE ASIATICA IN TREATMENT OF PSORIASIS.—Dr. J. C. White reports a striking instance in which the curative power of this remedy was unmistakable. The patient, a woman, aged 24 years, had been losing flesh and was very anæmic. An eruption, circular, dry, scaly, covered at least one-fourth of the surface of the body. The patches being from one-fourth to one-half of an inch in diameter. She received sulphur and afterwards psorinum, without perceptible benefit. Then she received two doses of hydrocotyle 30th. As improvement ceased, the remedy was repeated, in single doses, and the result was a perfect cure. The psoriasis had existed for years.—*Medical Advance*.

PHOSPHORUS IN SUSPECTED MALIGNANT DISEASE OF THE STOMACH.—The case reported by Dr. Jane G. Goss, in *Medical Advance*, impressed us very much for the reason that we have had two similar cases, in which the same

remedy produced similarly good results, although we administered it in the 30th potency, in repeated doses. Two excellent diagnosticians diagnosed cancer of the stomach, and decided that the patient must die. The patient had lost fifty-five pounds in weight during the preceding six months. He vomited many times a day. Had intense thirst, but the least sip of water caused severe pain, with little or no nausea. The vomiting was sudden, with great force. Occasionally, he vomited flecks of blood. The vomiting was aggravated by turning upon the left side. This patient received one dose of phosphorus 1m. Twelve years afterward the patient was in excellent health. This is a splendid cure and one that the author may well be proud of; but, it does not justify the remark which is made at the end of the article: "The scalpel of the surgeon generally hastens what we are trying to prevent." This is not generally true, for the modern surgeon is not more anxious to kill than the modern physician. A better sentiment would have been: "The scalpel of the surgeon has made possible many things that would be impossible under medical treatment alone."

DRUG DISEASES AND COMPULSORY MEDICINE.—Stuart Close, M.D., in *Medical Advance*, brings very forcibly to the attention of the medical profession the fact that drugs *cause* diseases as well as *cure* them. There may be those, in every school of medicine, who do not realize fully that the problem that confronts the medical man is often one of antidoting a drug disease, rather than one of curing a natural disease. As Hering said: "The last drug taken affords the best indication for the next prescription." This may be true in a great many instances, because the intelligent physician will always withhold treatment in those cases which are clearly sick from previous overdosing; at least until Nature shall have removed the drug-symptoms, or until he may have suitably antidoted the same. Credulity is not solely the possession of the laity. We physicians are sometimes blind to the fact that drugs possess pathogenetic power, as well as curative or therapeutic power; and we prescribe our drugs sometimes in the simple faith that each drug given will go their several ways through the devious channels of the body, performing the exact tasks that we have set for them to do. We sometimes fail to detect the fact that the preceding drug has left a trail of new symptoms, or has actually added to the disease picture gross toxic effects. Dr. Close also regrets the rapid growth of compulsory or State medicine. He does not like the extent to which serum-therapy has forced its alleged specifics for the infectious maladies upon the public. He thinks the choice of remedial agencies should be left to the private physician and to the personal choice of the layman. He thinks the passage of compulsory medical laws robs us of the cardinal feature of homœopathy, namely, the individualization of our cases. Take, for an example, a case of diphtheria. The author notes that the health board makes and directs the diagnosis, the treatment, the quarantine, the disinfection, the immunization of the household, the time of the resumption of ordinary relations with the world if the patient should recover, or the time and manner of conducting the funeral in the event of death, as well as the disinfection or destruction of the personal belongings of the patient. While this course of action relieves the physician of all responsibility, it likewise makes of the attending physician a mere automaton, an irresponsible routinist. It puts the life, the health, the property of the patient into the

power of an impersonal, heartless and irresponsible medical machine. It leads to the violation of the most cherished rights of person and property. It establishes a false basis of action, promulgates a lie for the truth, stultifies the intellect and debauches the morals. Above all, it fails in the very first requisite of a true art of healing—it does not cure. The use of the septic products of disease for so-called immunization frequently ruins or irreparably damages the health of members of the family who are not sick, and who thus become victims of a lifelong chronic disease and are left without recourse.

We think this extreme view of municipal jurisdiction of contagious maladies exactly expresses the views of a great many medical men and a great many of the laity—and we are sorry that such is the mental attitude of these people. The health board surely is actuated by a desire to protect the interests of the community; and in doing this, it sometimes becomes necessary to temporarily interfere with the comfort and even with the privileges of the individual. This will always be so, and always has been so. We must admit that, in our own experiences, the municipal authorities have always shown a disposition to reduce the discomfort, annoyance and sufferings of the individual to a minimum. The health board has invariably, in our experience, shown a disposition to co-operate with the physician, rather than to act in opposition to him, whenever the latter has evinced an intelligent realization of the necessities of the case. In regard to the statement that vaccination entails lifelong suffering, and produces chronic diseases of an incurable nature, we simply have not seen the evidences that prove this. We have not seen the bad effects that have been attributed to vaccination; and we believe that we have proven, to our own satisfaction, that vaccination protects against variola, in the majority of instances. With one statement of the author we are inclined to agree. He claims that the too rigid enforcement of compulsory medical laws is bound to create, in time, a reaction that will do much to annul or abolish them. That is probably true.

COLCHICUM IN CHRONIC PROCTITIS OR COLITIS.—A man, aged about 50 years, had suffered continuously for a period of five months from discharges from the bowels. He had, from history, several acute attacks some time before the beginning of present chronic condition. An examination showed nothing, save some hæmorrhoids, from which we decided that the intestinal lesions were higher up. This man had suffered much from a variety of treatments. The discharges consisted of lemon-colored, sticky mucus, mixed with blood. There was no tenesmus, sometimes the discharge came so quickly that he could not reach the closet. Occasionally, he had a brown fecal stool. The aggravation was at 8 A.M. and between 8 P.M. and 9 P.M. Colchicum 3, with simple saline enemas, cured him within a few weeks.

THE NEURALGIA OF HERPES ZOSTER.—Two remedies stand forth prominently in the therapeutics of such cases. *Ranunculus bulbosus* 3x may be selected with confidence when there is exquisite *tenderness* and *soreness* to touch over a large portion of the affected side. Certain points are more sensitive and more tender than others.

Arsenicum album 30 may be selected with confidence when an intense burning precedes the appearance of the eruption, and follows it as well. This burning may persist for weeks after the eruption has disappeared, unless

checked by the remedy. Scanty eruption, extreme burning, sharp neuralgic pain will suffice for the exhibition of arsenicum.

DISCHARGES FROM URETHRA.—A discharge from the urethra after micturition or after stool, thought to be gleet, but ascertained to be otherwise, was cured by *hepar 3x* after failure of *ferrum* and *natrum mur.* The discharge consisted of clear mucus.

PSORIASIS SYPHILITICA AND AURUM MURIATICUM.—*The Recorder* contained a translation of an article from the pen of Dr. G. Sieffert, of Paris, published in *Leipziger Pop. Z.*, in which the author refers to the very successful use of the above remedy in an inveterate case of syphilitic psoriasis occurring in a man aged 60 years. Two centigrammes of aurum muriaticum natronatum were dissolved in 200 centigrammes of aqua destillata. Of this solution, 2 tablespoonfuls were given daily. The result was a cure.

ANGIONEUROTIC ŒDEMA OF THE LARYNX—TRACHEOTOMY.—The case presented by Dr. N. H. Houghton before the Massachusetts Homœopathic Society, and detailed in December *New England Medical Gazette*, is one of the most interesting and instructive that we have perused for some time. It brings forcibly to mind another case which we saw some years since, which did not result as fortunately in recovery. Angioneurotic œdema of the *larynx* must be rare indeed. The patient was an Englishman, aged 46 years, who was an inmate of the Massachusetts Homœopathic Hospital. He was treated there for rheumatic gout, and presented the usual symptoms. While in the hospital he developed an œdema of the penis and scrotum, for which he received *apis* with benefit. Within a month it recurred, accompanied by abdominal cramps. Again it disappeared, but he began to complain of fulness in his throat and of inability to swallow. This was followed by œdema of the throat and regurgitation of fluids through the nose. Late the same night his physician was hastily summoned to see the patient, who was found bolstered up in bed, breathing with great difficulty, bathed in drops of perspiration. In short, presenting a complete picture of laryngeal stenosis. The uvula and faucial pillars were so oedematous that it was impossible to obtain a view of the larynx. After the uvula and faucial pillars had been punctured in the hope of relief, the man began to struggle for breath with all the strength with which he was endowed. Then convulsions occurred, and, becoming cyanosed, respirations ceased, and he dropped backward upon the bed, apparently dead. The trachea was hastily punctured and artificial respiration was begun by assistants. After respirations had become regularly established, a tube was inserted through the tracheal opening. The patient recovered. It was subsequently ascertained that the patient had been subject to these oedematous swellings ever since his boyhood. They had involved, practically, the entire bodily surface at one time or another. They had usually come on with itching and burning sensations in the affected parts. They had recurred whenever he had eaten of fish. A sister of the patient had also suffered in a similar manner. This sister had been once prepared for tracheotomy, but it was afterward found unnecessary. His father had died of asphyxiation, during a similar attack, before help could be summoned. The cause of this strange affection is some systemic condition which induces vasomotor disturbances in those who are of the neurotic type. Individual attacks may be

produced by exposure to cold, by indigestion, by certain kinds of food,—notably by fish,—by anxiety, grief or mental excitement. Alcoholism has been known to induce an attack. The question is whether uric acid may not be a common cause. This patient was discharged from the hospital cured of his rheumatic gout.

AGARICUS MUSCARIUS IN PRURITUS.—Dr. M. W. Van Denburg has found during an experience of some years, that agaricus, in the 3x or 6x potency, three to six times daily, is a prompt and efficient remedy for pruritus. This remedy was selected, in the usual manner, for agaricus symptoms, and, as improvement occurred, the remedy was given less frequently. Chronic pruritus of genitalia and about the anus, in elderly persons, may be considered a good general indication for the remedy.

PRACTICAL OBSERVATIONS ON THE STRENGTH OF MEDICINES.—*Pulsatilla.*—It has been my experience with this remedy that it acts best in the 6th potency and upwards. I have yet to see the decided action from the tincture and lower potencies that I have seen from the higher.

Chamomilla.—If physicians would use this remedy in the 12th potency they would learn to respect it more highly.

Gelsemium.—In nervous headache and in migraine there is no better potency than the 30th. I have seen excellent results from the tincture and lowest potencies that I have never been able to obtain from the higher in other conditions for which the remedy is generally prescribed.

Aconite.—In acute affections the remedy should be administered as low as the 3d. In neuralgias, however, I have found the 30th a very satisfactory potency.

Bryonia.—This is a remedy that I use almost exclusively in the 3d potency. Formerly, I used the tincture and first dilution, but have never had the prompt results from the lower dilutions that I have had from the 3d. I have also observed that it is not wise to repeat bryonia too frequently. It is a mistake to give it every half hour. Even in very acute affections once in three or four hours is better.

Graphites.—In gastric complaints this remedy is most active in the 12th dilution, as originally recommended by Dr. Jousset.

Nux Vomica.—I believe that we have no better potency than the 200th in genuine nux vomica constipation. This acts when the lower potencies will fail. In gastric disorders the 12th is a satisfactory preparation.

Anacardium has proven to be practically useless in potencies lower than the 12th.

Cannabis Sativa.—In the treatment of gonorrhœa I have never had such gratifying results from the tincture as I have from the 3d potency. I formerly gave the tincture in 10-drop doses, but found the smaller dose was much more efficacious.

Coffee.—The 30th potency is the only potency to give for sleeplessness.

Digitalis.—I do not give this remedy, homœopathically, for rapid pulse, as it is never so indicated. The 3d potency is called for when the pulse is slow, when there are sinking sensations at epigastrium and other well-known symptoms.

Conium.—The 30th potency will surely cure "lumps" in the female breasts. Of this I am positive. The pains may be piercing, the gland tender, with fugitive stitchings here and there. It is indicated if the lump dates from some injury. In the formative stage of these neoplasms the remedy acts by checking further development, and at this stage the waiting of a few weeks will not harm the patient.

Sanguinaria.—In headache this remedy has served me best in the tincture. In rheumatism the higher potencies have proved more satisfactory.

Lycopodium.—Generally prescribed in the high potencies this remedy in the tincture will do most satisfactory work in the so-called uric-acid diathesis, clearing up the red-sand deposit in the urine when potencies have failed.

Kali Muriacum.—One of the positive things in medicine is the power of the 6th potency of this remedy to cure the ordinary follicular sore throat that occurs in children as a result of dietary indiscretions.

Veratrum Album.—I am actually afraid to use this remedy below the 6th in diarrhœas. I have seen patients with choleraic diarrhœas die from the too sudden stoppage of the discharge. The higher potencies act less promptly, but with less danger.

Ignatia.—More failures follow the administration of this remedy, simply because of the use of low potencies, than from any other cause.

Phosphoric Acid.—In the 12th potency I have seen the night-sweats of phthisis checked by this remedy.

Carbo Vegetabilis.—The 6th will act well in indigestion.

Cinchona is generally prescribed too low in symptomatic anæmias. The 30th will act well.

Finally, it has ever been my opinion that the adoption of the decimal scale, as a dispensing one, has been a mistake, and has furnished us with preparations that oftentimes too nearly approach, in fact and in application, those of allopathy. We should ever keep in sight the fundamental principle of homœopathy, namely, to give the least possible amount of medicine that will cure the patient.—W. A. Dewey, M.D., in *Homœopathic Recorder* of December 15th.

WHY WE ALTERNATE.—Dr. J. W. Mastin evidently believes that the main reason is that materia medica is taught, in the majority of our colleges, with less thoroughness than it should be. We cannot agree with this, because, as far as we have investigated the matter, this branch is taught with great thoroughness and care in the majority of our homœopathic institutions. We do think, however, that no man can hope to master the materia medica during his college career. Yet many men seem to think this possible, because no sooner have they left college, and begun their medical lives, than they abandon the further study of materia medica, devoting the major portion of their attention to other matters. The result of this abandonment of the study of pathogenesis is shown in the subsequent faulty adaptation of remedy to patient and alternation and other crudities of practice. Occasionally, alternation is commendable, but very generally the practice of giving two or three remedies at the same time simply tells the story of superficial knowledge of remedial effects. The author believes that our teachers neglect the polycrests and more useful remedies, devoting too much time to unimportant drugs. He thinks that an intimate knowledge of Jahr's twenty-four com-

monly used remedies would be preferable to a superficial acquaintance with a multitude of drugs. And very likely this is true, when we take into account the fact that the average practitioner, after ten years' experience, carries and uses fewer remedies than does the novice fresh from his alma mater. But, perhaps also, the older practitioner may have forgotten some things, for the reason that he has not kept up his study of materia medica. So many writers seem to think that every member of a college faculty should be required to teach homœopathic therapeutics just as the professor of materia medica teaches that branch. This is ideal, but it will happen about the time that the professor of materia medica begins to show unusual skill as an anatomist or as an operator—which will be some time. All we can hope for or ask for is that every member of a college faculty shall be in perfect sympathy and harmony with the homœopathic idea of drug-selection. Dr. Mastin, in his article republished in *Recorder*, wishes the student to memorize the *Materia Medica Cards* of Hering, as a beginning, believing that he will in this way obtain a fundamental knowledge of the characteristics of common drugs.

SCRAPS.—When the heads of a household are forever quarreling, it is unfavorable environment for the young people. A college is a household, and its heads should be one in beliefs, in aims and in purpose. Otherwise the young people of that household will not grow up to be good homœopaths. Youngsters are wonderful imitators of their seniors. That's the reason so many of them acquire bad habits early in life. Environment is the thing.

ANTIMONIUM TARTARICUM.—We wonder whether physicians fully realize that this remedy, in the 1x and 2x trituration, is capable of working much mischief when administered to a delicate infant suffering from a wide-spread broncho-pneumonia? The warning has been sounded long enough and loud enough. The 6th decimal or 3d centesimal trituration is low enough for any one who is anxious to help—not hurt—his little patient. The recent statement of Dr. Dewey, that the substitution of the decimal scale in prescribing was an unfortunate move, is largely true, for we prescribe too many 1x and 2x preparations. Ask any pharmacist how many physicians buy the 6x and higher, in comparison with those who invariably purchase the former strengths, and you will be surprised.

CALCAREA FLUORICA IN DENTAL CARIES.—A Mrs. B., mother of one child, and probably syphilitic, because her husband contracted that disease three years previous to marriage; and the child showed a copper-colored eruption three days after its birth. One month after the birth of this child, Mrs. B. had pains in the long bones and a mucous patch upon the upper lip. She also developed a number of pustular syphilides on various portions of the body. These latter disappeared under kali hyd. 2x. Then came ulcers upon the gums surrounding the canine teeth, with loosening of these teeth and soreness and bleeding of the gums. Mercurius did nothing, and both teeth fell out within two weeks. Pieces of bone from the alveolar process were thrown off, and the bicuspid loosened and threatened to fall out also. In this stage of the trouble, the physician gave calcarea fluorica 6x, 3 tablets every three hours. This remedy cleared up the whole difficulty.—E. R. Harpel, M.D., in *American Physician*.

DIFFICULTY IN PRESCRIBING ACCURATELY.—Dr. J. S. Niederkorn, an eclectic physician, well known as an accurate prescriber, says in one of his recent articles that it is sometimes very difficult to accurately differentiate similarly acting drugs. Take, for an example, the treatment of acute intestinal disorders. He thinks that here it is sometimes well nigh impossible to decide whether *nux vomica* or *colocynth* is the remedy for the case in hand. The more one reads or hears about the action and indications for these drugs, oftentimes the greater the confusion that arises. Such statements from an intelligent and accurate student of therapeutics certainly shows that the physician who would prescribe accurately needs the assistance of some law or rule, whereby he may differentiate one remedy from another, especially when two such remedies meet frequently upon common grounds of pathogenetic effect. We honestly believe that the method of *similia*, to a very large degree, supplies this much-needed assistance. Indeed, at the present time, we have nothing else that can take its place. Such facts ought to make every homœopathic physician proud of his system, and eager to profit by the teachings of the *Organon*. We do not, however, always appreciate the good things we have.

APIS MELLIFICA.—Apis has great craving for milk. Most of its provers craved for milk. It is antidotal to the poison. So milk is one of the best remedies after getting sick from eating honey. *Rhus tox.* has the same craving for milk, even in those who never use milk in health, as I have personally verified. Milk is also the best antidote, internally and locally, for poison oak. This is a bit of news.—Wm. Boericke, M.D., in *Medical Century*.

DAMIANA.—Damiana comp. was one of those merry jokes that ever, and once more, have been played upon the unsuspecting medical profession. It was said to be the one way by which man could reach the priapistic existence of youth—at 65. How good a joke it was, those who tried it can best appreciate. Dr. Lyman Watkins, in *Eclectic Medical Journal*, gives us some good advice upon the subject of aphrodisiacs and their illegitimate usage. He has, however, made some useful and interesting experiments with this drug in the amenorrhœas of anæmic young girls, just budding into womanhood.

He has found it useful. For example, a pale, anæmic child of 14 years, had a menstrual flow once some eight months previous to his first observation of her. Tonic and ferruginous treatments improved her general condition; but the menstrual flow, after fourteen months, did not reappear. Then the author prescribed a few drops of the tincture of damiana every four hours. After two weeks' treatment, the normal flow appeared. The same medicine produced a normal flow every time it was administered in this way. After a year it became naturally established and regular.

In another case, a young lady aged 16 years, in whom no menstrual flow had yet appeared, it produced a profuse flow within a few days after it was prescribed, and thereafter the patient menstruated normally. The author does not find that the remedy is useful in amenorrhœa, except in the class of cases mentioned above.

AN INQUIRY INTO THE DYNAMIC ACTION OF DRUGS.—While some of our readers may doubt the practical utility of the theory announced by Dr. C. Zurmühlen, in *Medical Century* for January, yet the author offers us a new

thought which may stimulate further researches. Disease, he claims, is caused by a change in the rate of vibration, in the molecules of the tissues, which differs from the even and harmonious rate of vibration constituting health. This change is due to some outside force. The forces which compel the tissue molecules to change their state are of a twofold character, mental and physical. The mental forces are grief, fright, anger, fear, worry, disappointment and excessive mental exertion. The physical forces are extremes of heat and cold, sudden changes in temperature, cold combined with moisture, unfavorable climate, unsanitary surroundings, the use of narcotics and alcohol, and last, but not least, licentiousness.

In *acute* diseases the rate of vibration is largely *increased* above the normal, and the result is an increase in the tissue changes, with rapid disintegration of tissues and a tendency to liquefaction. This is accompanied by a rise in temperature. In *chronic* diseases we find a reversed condition. The vibration-rate is below the normal, the temperature is often subnormal, a proliferation of cells takes place in the tissues, and the parenchyma of the viscera is replaced by fibrous tissue, lime salts are deposited in the coats of the arteries, and concretions are formed in the joints.

When we potentize a drug by succussion or trituration we develop a dynamic force from some pre-existing force. The primordial forces from which the dynamic force must be developed are, of course, heat, light, electricity, capillarity, cohesion, chemical force, gravitation, and the vital force. The writer believes that during the process of potentization, *gravitation*, which is a centripetal force, or the force of attraction, is changed into the so-called dynamic force. This is not such a wild statement as one might at first glance suppose; for, during the disintegration of the zinc and copper poles of the galvanic battery, considerable force is evolved, the molecules of which vibrate along the conducting-wires at an exceedingly high rate of motion. The atoms of the low potencies must have a slower rate of vibration than the minute corpuscles of the high potencies, which latter are 1000 times smaller than atoms. That such corpuscles do develop a wonderful force from this high rate of vibration is known to all, because do not the corpuscles of the X-rays penetrate wood, metal and glass, and have not the emanations from radium the same power? After such preliminary argument, the author states his theory of drug-action as follows. He has often observed that the high notes of a soprano voice vibrate in unison with the lowest base notes of the organ, and the same is true of the piccolo, clarinet and oboe. Thus is produced harmony. So it may be that the slow vibrating drug molecules of the low potencies vibrate in unison with the rapidly vibrating tissue molecules in acute diseases. And, also, that the rapidly vibrating drug molecules of the higher potencies vibrate in unison with the slowly vibrating molecule in chronic diseases. In this way, perhaps, the harmony or equilibrium of the vital force is restored. If this theory should subsequently prove to be a true one, then the law of potency would read: "The potency of the drug must be chosen in an inverse order to the rate of vibration in the tissue molecule." Strange things happen nowadays. Bacteriologists have taught us that bacteria are the cause of disease. In recent literature appears much that seems to modify such teaching. In a recent number of the *New York Medical News*, the writer claims that cancer is due to an abbreviation of the vital

force, which results in rapid proliferation of cells. He ignores the bacteria. Similar to the *Organon* teachings—somewhat.

OBSERVATIONS ON THE THERAPEUTIC USES OF THE TINCTURE OF AILANTHUS.—Dr. Alfred C. Pope has written an excellent article upon *ailanthus glandulosus*, in which he has collected much that relates to the introduction of the remedy into homœopathic practice, subsequent to the remarkable accidental provings made by the daughter of the late Dr. P. P. Wells, of Brooklyn. This is very interesting reading, and we commend it to those who have not followed the old files of our journals, in which it was originally published. Dr. Wells's little daughter and her friend were amusing themselves one evening with some shoots of the *ailanthus*, and they accidentally conveyed to their mouths considerable of the juice of the inner bark. One must follow the subsequent history of the child, as recorded by her father, in order to fully appreciate how very similar her illness was to that form of scarlet fever which we recognize as pernicious or malignant, and which is so very generally fatal. Subsequently, Dr. Wells very cautiously drew the inference that the remedy might be found valuable in certain serious forms of scarlet fever; and the homœopathic world knows full well, to-day, how much we owe to this physician for this observation of his. One single instance will show how great the results may be that follow a single therapeutic deduction based upon the law of *similia*. Dr. Chalmers, of Sheffield, was engaged in making some experimental observations and investigations of homœopathy. An epidemic raged in his town. Adynamic, malignant scarlet fever, and the mortality was great. Dr. Chalmers wrote to the author of this paper, telling the latter that he had been much disappointed in the action of the remedies used, and asking for a *similimum* for this malignant type of scarlet fever. Dr. Pope replied that we did not possess a true simile, unless it proved to be this remedy of which Dr. Wells had spoken. Dr. Pope also sent some tincture. Up to this time, Dr. Chalmers had lost every case of this malignant type of the disease. Subsequently, he treated seven cases with the *ailanthus*, and all recovered. The experiences of homœopathic physicians in subsequent epidemics have confirmed these original observations. Dr. Pope shows how useful the same remedy is in malignant diphtheria, and also in measles. He also makes it plain that *ailanthus* covers many of the manifestations of that cerebral congestion which appears to be the precursor of an apoplexy, in feeble and organically diseased persons. Dr. Dyce Brown has suggested that *ailanthus* should also prove to be of service in some cases of cerebro-spinal meningitis. This paper of Dr. Pope's should stimulate a renewed interest in the pathogenesis of this extraordinary remedy.

A SIMPLE METHOD FOR RELIEVING NEURALGIA.—*The Medical Times* calls attention to the observation of Dr. W. C. Belt, originally published in *Health*, that if a patient suffering from severe neuralgic pain will simply place the hand, opposite the side on which the pain is felt, in a basin of very hot water, relief will be had within five minutes. The two nerves endowed with the greatest number of tactile nerve endings are the fifth and the median, and their motor areas in the cortex are not only adjacent, but actually overlap. As the fibres cross in the cord, the author expects a powerful tactile impulse conveyed from, say, the left hand, to affect in some degree the corticle centre of the fifth nerve of the opposite side.

SUPPURATING BREASTS.—Dr. E. R. Waterhouse claims that ammonia muriate is a specific in the treatment of threatened suppuration of the mammary glands of the recent mother. When the breast becomes sore and caked, and suppuration seems inevitable, he directs that one ounce of the muriate of ammonia be put into a quart of hot water, and towels wrung out of this solution packed over and about the breasts. These towels are to be re-wet as soon as they become cool.—*Eclectic Medical Journal*. Quite recently we had a case that threatened to end seriously on account of the swollen, caked, inflamed condition of both breasts, following the weaning of a year old baby. Suppuration seemed inevitable. Frequent gentle massage with hot, melted phytolacca cerate, and the internal administration of the phytolacca tincture, worked a miracle.

DIGITALIS—THE FRESH INFUSION IN DROPSY.—Those who have grown weary of the inefficiency of digitalis in cardiac dropsies may be interested in the following remarks of Dr. Waterhouse. He has found that a *fresh* infusion made from selected English leaves, five grains to the ounce, given in teaspoonful doses six times a day, is far superior to any tincture or fluid extract that he has ever used. A small portion of brandy should be added to this infusion.—*Eclectic Medical Journal*.

BURNS.—Ten grains of menthol dissolved in one ounce of distillate of witch-hazel is said to relieve the pain of a burn in one minute. It may be applied upon gauze dressings.

COLCHICUM AUTUMNALE.—Dr. Grubel epitomizes its therapeutic range as follows:

1. Pre-eminently useful for the uric acid diathesis. Urine loaded with uric acid; predisposition to gout or rheumatico-gouty disorders. Its value is significant during an attack of gout or articular rheumatism when vital organs threaten to become implicated, and such complications, as nephritis, pericarditis, endocarditis, pleurisy, are very apt to awaken solicitude. Muscular rheumatism excited by excess of uric acid. Chorea in various forms, accompanied by elimination of uric acid. In all these conditions this remedy is well-nigh indispensable, generally effecting a prompt elimination of uric acid and urates, and, in conjunction with appropriate, general therapeutic measures, preventing relapses by virtue of its curative (eradivative), and not suppressive, action. Cautious administration is, however, essential, as too often gastroenteric irritability with collapsic symptoms are induced by large or too frequently repeated doses.

2. It is a royal stomach remedy when nausea, with loathing of all food, is strikingly present; the mere odor or thought of food is so repulsive that nausea and vomiting occur. Any gastric disturbance attended by this indication.

3. No doubt, it is one of our leading remedies in catarrhal colitis with severe colic and tenesmus. Dysentery with white or bloody mucus and violent tenesmus.

4. It stands in specific relation to the kidneys, and is applicable to acute and chronic nephritis, latter especially, if a complication of gout.

5. It is also utilizable in states of nervous weakness, attacks of heart weakness, impending heart failure, and, lastly, as an intercurrent during typhoid fever.—*Homœopathische Monatsblätter*, October, 1903.

NITRIC ACID.—Dr. Mossa, in an article on the use of this remedy in urinary affections, emphasizes notably the following:

1. It is most effective in diseases of the skin and mucous membranes engrafted upon a syctic base.
2. Its trend of action is very similar to mercurius.
3. It is actively curative in secondary and tertiary syphilis.
4. It is invaluable in the hydrogenoid constitution.
5. Its usefulness in hæmaturia, oxaluria (with acid stomach), icterus and ascites of hepatic disorders, hydronephrosis, renal calculi, vesical hæmorrhage, old prostatic cases, with phosphatic urine or polyuria.—*Zeitschrift des Berliner Vereines Hom. Ärzte*, October, 1903.

VERATRUM ALBUM.—It seems as if the picture of coldness, cold sweat, weakness and faintness was a fairly certain indication for the use of veratrum under many circumstances. A man, who had once been "a rounder," but of latter years a useful citizen, complained of frequently recurring attacks while walking on the street, or while attending to his business. These attacks consisted of a feeling as if the circulation had come to a standstill, followed by coldness of the entire body, faintness and weakness, and cold sweat. An "all-gone" sensation was frequently experienced. Examination during such attacks showed *irregular* and feeble cardiac action, but no valvular lesion. He appeared pale, cold and looked as if about to collapse. We do not pretend to know what ailed the man, as complete physical examination failed to reveal any organic changes. Veratrum album 3x cured him. It was astonishing how much treatment this man had previously received, from allopathic physicians, without obtaining relief.

A very unhealthy looking Chinaman, with sore eyes, pannus and so on, was taken one night with severe attack of hæmatemesis. He vomited basins of blood. (I saw two of these myself.) There was no pain, no nausea, his extremities were cold as ice, his respiration was sighing, his face drawn and sunken. I thought he was dying, as the pulse was so feeble that it could only occasionally be distinguished. He had a tumor extending from the left hypochondrium towards the centre of the abdomen. I thought it was the spleen, and that he had some sort of splenic anæmia, but there was no time for further thought in this direction. Veratrum album 3x stopped the vomiting, stopped all hæmorrhage, and in two or three days restored him to a much stronger state. Indeed, after one week, he seemed so well and so much stronger that he started upon his travels, and we lost further sight of him. I have often wondered how any remedy, administered by the mouth, could influence such a condition; but it did do so.

AGARICUS MUSCARIUS IN TWITCHING OF FACIAL MUSCLES.—An old lady, suffering from ectropion and inflamed eyes, complained of very persistent twitching of the muscles about the eyes. The irregular twitching could be seen. This symptom is generally controlled by agaricus. In this case it acted very promptly in the 3x dilution.

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MEDICAL ASPECTS OF CHRISTIAN SCIENCE.*

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ONE of the striking phenomena of our times is the rapid rise and growth of Christian Science, so called. Whatever the explanation, it is a *fact* not to be denied. Indeed the growth of the cult is remarkable. Mrs. Eddy's text-book—*Science and Health, with Key to the Scriptures*—has already reached two hundred and twenty-five editions, and her adherents are rapidly increasing in numbers. Moreover, they do not belong chiefly to the ignorant or uneducated classes—on the contrary, they are, as a class, fairly representative of the average intelligence and culture of the better educated among us.

Now this fact must have some explanation. Such a large body of intelligent people cannot surely be *all* blind adherents of a mere theory. It is true, no doubt, that almost any theory or belief will thrive and grow *for a time*, if only *vigorously propounded* and maintained with much *assurance*; but should the

* This paper was written for and presented to the New Jersey Chiron Club, an association of physicians of Newark and vicinity, without any thought of publication. The Club deemed the subject of sufficient importance, however, to demand a wider publicity, and it was voted to have the paper printed. It is, therefore, given to the profession, in practically its original form, in the hope that it may prove of some value in pointing out both the true and the false in the teaching and practice of Christian Science, so called. While the author realizes the incompleteness of his work, it is nevertheless submitted, as originally presented, with the expectation that it will prove at least suggestive, and lead some of the profession to a more thorough, personal investigation of the subject.

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growth continue for a quarter of a century, for example, there must be more than mere theory to account for it. So *many* intelligent people cannot be fooled for *so long a time* by any mere belief. There must be *some* germ of truth or element of power back of any movement that *endures* and *grows* among intelligent people.

What is the truth in Christian Science that accounts for its rapid growth? What is the real explanation of its persistence? It is the attempt to answer this question very briefly that has led to the writing of this paper. Certainly the matter vitally concerns us as physicians.

It is not my purpose to make any exhaustive examination, much less offer any elaborate criticism, of Christian Science at this time—the limits of this paper forbid that—but I do want to discover, if possible, the real germ of truth and power in the system. If there is any truth in it, that truth will endure. If the truth is perverted and misunderstood by the followers of Christian Science, the more reason why it should be understood and brought into the realm of *true* science, especially by physicians, who are so vitally interested in the subject, and ought to be the natural educators of public opinion on the matter. While, then, we have no wish or intention of offering any elaborate criticism of the system, it does seem necessary to examine briefly the fundamental propositions on which the whole structure rests, and to point out some of the strange inconsistencies and contradictions, as they seem to us, of the textbook of Christian Science on the subject of sickness and pain. This is the aspect of the system that especially concerns us as physicians, and to which we will confine our attention, omitting all discussion of the ethical and theological bearings of the faith. And let us remark, at the outset, that this examination is undertaken in the kindest spirit, with an open mind, with willing recognition of the excellent character, the entire sincerity, and the Christian principle of many Christian scientists. It is never pleasant to criticise another's religious faith, especially when that faith has undoubtedly served a good purpose and wrought a wholesome influence in his life. Such criticisms as may be offered, then, are offered in the kindest spirit, and with no wish to offend or hurt. But truth is more important than any individual's faith or feeling. As scientific men, we are in search

of truth only, wherever found and however strangely disguised by the clothing of a false human logic. *Magna est veritas et prævalebit.* Turn we then to our task in this spirit.

The founder of Christian Science in her book, *Science and Health, with Key to the Scriptures*, lays down the following fundamental propositions and definitions, upon which the whole superstructure of her system rests. "The fundamental propositions of Christian Science are summarized in the four following, to me, self-evident propositions: 1. God is all in all; 2. God is good, God is mind; 3. God, Spirit, being all, nothing is matter; 4. Life, God, omnipotent Good deny death, evil, sin, disease.—Disease, sin, evil, death deny Good, Omnipotent God, Life."

Then follow her "scientific definitions" of God, Man and Idea, viz., "God: Principle, Life, Truth, Love, Soul, Spirit, Mind"—Divine synonyms.

"Man: God's universal idea, individual, perfect, eternal."
"Idea: An image in mind, the immediate object of understanding."

From these fundamental propositions Mrs. Eddy's whole system, philosophically, theologically and practically, is developed by pure *deductive* reasoning, and in calm indifference to the testimony of the senses and the facts of daily experience. As she distinctly claims Divine inspiration in the writing of her book, her logic, her reasoning, her deductions, in a word her whole system of faith and practice ought not only to *bear*, but *court*, the most searching investigation. Her own words are: "No human pen or tongue taught me the science contained in this book, *Science and Health*, and neither tongue nor pen can ever overthrow it" (p. 4). And again: "I should blush to write of '*Science and Health*' as I have, were it of human origin, and I, apart from God, its author. But as I was only a scribe echoing the harmonies of heaven in divine metaphysics, I cannot be super-modest in my estimate of the Christian Science text-book." "Is it too much to say that this book is leavening the whole lump of human thought. You can trace its teachings in each step of mental and spiritual progress, from pulpit and press, in religion and ethics, and find this step either written or indicated therein. It has mounted thought on the swift and mighty chariot of divine love, which to-day is

circling the whole world." Just here we may remark, parenthetically, that there seems to be little danger of Mrs. Eddy's ever being "super-modest" in her estimate of her book!

Will the inspiration of this remarkable book bear the light of critical examination? Will its "inspired" logic and philosophy stand the test of reason? Let us see:—Confining ourselves to the *medical*, rather than the theological, aspects of the subject—if "God is all in all," and if "God being all in all, nothing is matter;" and if "Life, God, Omnipotent Good, deny death, evil, sin, disease;" and if man is "God's universal idea, individual, perfect, eternal."—Then it is pertinent to inquire how there can possibly be any sin or sickness or death. The author of *Science and Health* denies that there is any such thing, and so far is consistent with herself. But why then is there any necessity of her writing a specially inspired book of some six hundred pages to tell people, who really cannot be sick, how to avoid or be cured of that which really has no existence? We confess the matter remains a mystery.

Here indeed we put our finger on the fundamental mistake of the whole philosophy—fundamental, because it touches a "fundamental proposition," which in its denial of the *existence* of matter, and so of pain and disease, begs the whole question, and calmly *assumes* the very point at issue. Starting with a false assumption, the *logic* of the following reasoning may be correct, but the conclusion must be false. Mrs. Eddy, in her fundamental propositions, quietly *assumes* the truth of the very thing she spends several hundred pages in trying to prove, with much false logic and frequent inconsistency of statement.

There is no manner of doubt that the teaching of "Science and Health" is positively to exclude the very *existence* of any such thing as matter or disease. This so-called "truth" of the new science is emphasized with painful reiteration on page after page of the book. "Matter" is Mrs. Eddy's great antagonist, and she labors long and painfully to dispose of it. The following quotations, which might be multiplied almost indefinitely, make the teaching of the book on the subject plain. "The opposite of Truth—called error, sin, sickness, disease, death—is the false testimony of false material sense; this false sense evolves in belief, a subjective state of mortal mind, which this same mind calls matter, thereby shutting out the true sense of

spirit" (p. 2). "Matter and its claims to sin, sickness and death are contrary to God, and cannot emanate from God. There is no *material* truth. . . . Deductions from material hypotheses are not scientific. . . . The so-called laus of matter and medical science have never made mortals whole, harmonious and immortal" (p. 169). "The realm of the real is spiritual. The opposite of Spirit is matter, and the opposite of the real is the unreal, or material. Matter is an error of statement. . . . Science repudiates matter. Spirit is the only substance and consciousness recognized by Science. The senses oppose this; but there are no material senses, for matter has no sensation. To Spirit there is no matter; even as to Truth there is no error, and to Good no evil. It is a false supposition, the notion that there is real substance-matter, the opposite of Spirit. Spirit is God and God is all; hence He can have no opposite" (pp. 173-4). "God being everywhere and all-inclusive, how can He be absent or suggest the absence of omnipotence. How can there be more than all? . . . The supposition that life, substance and intelligence are *in* matter, or *of* it, is an error. The five material senses (*sic* ?) testify to truth and error as united in a mind both good and evil. Their false evidence must yield to Truth only" (p. 183). "Matter is unknown in the universe of Mind. . . . Trees, plants, and flowers are ideas of Mind. . . . Rightly understood, instead of possessing a sentient material form, man has a sensationless body" (p. 176).*

Quite naturally, Mrs. Eddy's philosophy of sickness, reasoning from such a false fundamental proposition, is a purely *mental* and *idealistic* one. There being no matter and no material senses and no sentient material body, according to this strange philosopher, sensations, sickness, pain, and even death are only mere *beliefs* of mortal mind. "The fact that pain cannot exist where there is no mortal mind to feel it, is a proof that this so-called mind *makes its own pain*—that is, its own *belief* in pain" (p. 47). "You say 'I have burned my finger.' This is an exact statement, more exact than you suppose; for mortal mind, and not matter, burns it" (p. 54). "Disease being a *belief*,—a *latent illusion* of mortal mind" (p. 61). "The so-called

* Similar quotations might be multiplied, but let these suffice. The reader who is interested is referred to pp. 59, 109, 190, 193, 157, 165, 169, 197, 207, 213, 237, 298, 367, 384, 415, etc., for other passages of similar import.

laus of matter are nothing but false beliefs in the presence of Intelligence and Life where Mind is not. This is the procuring cause of all disease" (p. 64). "All disease is the result of education, and can carry its ill effects no further than mortal mind maps out the way" (p. 69). "What is termed disease does not exist" (p. 81). "What then is this seeming power which causes disease and cures it? What is it but an error in belief—a law of mortal mind, wrong in every sense, embracing sin, sickness and death?" (p. 104). "The sensation of sickness and sin exist only in belief" (p. 107). "A sick body is evolved from sick thoughts. Evil, disease, and death proceed from false beliefs" (p. 156).

Even the fatal result of a dose of poison, so we are told, is simply the result of belief. "If a dose of poison is swallowed by mistake and the patient dies, even though physician and patient are expecting favorable results, does *belief*, you ask, cause this death? Even so, and as directly as if the poison had been intentionally taken. In such cases a few persons believe the potion swallowed by the patient to be harmless; but the vast majority of mankind, though they know of this particular case and this special person, believe the arsenic, the strychnine, or whatever the drug used to be poisonous, for it has been set down as a poison by mortal mind. The consequence is that the result is controlled by the majority of opinions outside, not by the infinitesimal minority of opinions in the sick chamber."

Surely here is a new and illuminating theory of poisons and their action. It would be pertinent just here to inquire how Mrs. Eddy explains the no less certain and destructive effect of arsenic or strychnine upon animals who have no "mortal mind," with its belief in a destructive action of poison. And it would be still more interesting to inquire what would be the result if Mrs. Eddy herself were to take five grains of strychnine at a dose. Would she rise above the common belief that strychnine is a violent poison, and so—not *believing* it to be harmful—escape unhurt? If she believes what she says, why not put the matter to a practical test? Strychnine is nothing whatever to her—there is no matter—how should it hurt her? Why does not Mrs. Eddy *demonstrate* the truth of her "Science" by this crucial test? We venture the assertion that if she should succeed

in thus proving her claims, she would make more converts by this one master stroke than by five hundred editions of her book. Can it be that she harbors a dim suspicion that perhaps, after all, she might not escape the destructive effects of a "belief of mortal mind?" Perish the thought!

In a word there can be no doubt that, beginning with one of the "fundamental propositions," the teaching of the book, from cover to cover, is to deny the very *existence*, the reality, of matter, and so, naturally, of sickness and pain. According to this strange philosopher, not only is the testimony of the physical senses false, but "there *are* no material senses" (p. 174); not only has matter no reality, substance or existence, but even the physical body, "mortal matter, or body, is but a false concept of mortal mind" (p. 70); not only is the origin and character of all pain and disease purely metaphysical, not physical, but all sensations and even the "mortal body" (*sic*?) itself are only "beliefs of mortal mind" (pp. 109-110, 146, 170, 237, 373, 383, etc.); not only are sin and sickness "suicidal" (p. 147), but in reality there is no youth or age, no physical life or death (pp. 140-2, 184-5. Why, then, do Christian Scientists die?). In short, the teaching of this extraordinary book, so far as our earthly life is concerned, may be summed up in the author's own words, "the ghastly farce of material existence" (p. 168).

And yet, in spite of the non-existence of sin, of matter, of pain, of disease, and of death, here is a book of some six hundred pages that professes to teach mortal man, whose material body can have no reality, but is only a false concept, and who really cannot sin or be sick or in pain or even die, how to avoid or escape from these very things, or illusions, as they are called. Struggling painfully, as the author does, to get rid of matter, her book is yet filled with references to the body, to sickness and pain, and other very material things. Why, if "man is incapable of sin, sickness, and death" (p. 471), is there any necessity of instruction on the author's part? If "the real man cannot depart from holiness," whence does he derive his propensity to sin? To be consistent in her logic, our author would deny that he *has* any basis or propensity to sin and disease. Necessarily that would also exclude any necessity for her book of instruction.

How, then, does this strangely "inspired" book solve the

problem? In a single expression, "*mortal mind*" is Mrs. Eddy's explanation of the existence, or apparent existence, of matter, sin, sickness and death. And what may this "*mortal mind*" be, about which she has so much to say, and at whose door so much blame is laid? We confess we are still somewhat uncertain ourselves, even after a careful reading of the book, and a thoughtful digestion of the author's definition. Here are her own words: "Mortal mind is a solecism in language, and involves an improper use of the word mind. As mind is immortal, the phrase 'mortal mind' implies something untrue and therefore unreal; and, as the phrase is used in teaching Christian Science, it is meant to designate something which has no real existence" (p. 8). "Mortal mind and body are one" (p. 70). "The phrase 'mortal mind' is really a solecism. . . . This so-called 'mind' acts against itself and is self-destructive" (p. 106). "In reality there is no mortal mind" (p. 283). "What you call 'matter,' was originally error in solution, or 'mortal mind'" (p. 371). In the glossary at the end of the book, "*mortal mind*" is thus defined: "Nothing, claiming to be something; mythology; error creating other errors; a suppositional material sense, alias the belief that sensation is in matter, which is sensationless; a belief that life, substance, and intelligence are in and of matter; the opposite of spirit, and, therefore, the opposite of God, or Good; the belief that life has a beginning and therefore an end; the belief that man is the offspring of mortals; the belief that there can be more than one creator; idolatry; the subjective states of error; material senses; that which neither exists in Science, nor can be recognized by the spiritual sense; sin; sickness; death." With such a definition it is possible to do considerable juggling. Perhaps it isn't surprising that the average reader of the book remains a little lazy in his ideas as to just what this "*mortal mind*" really is. It seems to be a rather inoffensive notion, at times, merely "error in solution," or a "solecism of language," or "something which has no real existence—nothing claiming to be something;" but, again, it is made responsible for, or identical with, sin, sickness, death, and all our woes. Take whatever member of this cumbrous definition you please, and for purposes of argument there are many convenient doors of escape, if cornered. If persecuted in one section, it is possible to flee to another!

The candid seeker after truth might feel disposed to inquire how this illusion, this error, this false belief, this "nothing claiming to be something," can *have* any opinion or belief at all. In answer to the question "Who, or what is it that believes?" the author makes reply (p. 483). "Spirit understands and thus precludes the need of believing. Matter cannot believe, but mind understands. The body cannot believe. The believer and belief are one, and are mortal mind. Christian evidence is founded on science, or demonstrable truth, flowing from Immortal Mind; and there is really no such thing as mortal mind. Mere belief is blindness, without principle wherefrom to explain the reason of its hope."

There you have it—all in a nutshell. "There is no such thing as matter," there is "really no such thing as mortal mind," "believer and belief are one and *are* mortal mind;" *ergo*, the believer himself is nothing but a delusion, a false belief, and really has no existence! And yet this mortal mind which really does not exist, and cannot believe, nevertheless causes the (apparent) death of the deluded mortal who swallows a deadly poison, because he *thinks* he lives and *believes* poisons are harmful. Could the *reductio ad absurdum* be carried further? "The only reality of sin, sickness and death is the awful fact that unrealities *seem* real to human belief, until God strips off their disguise. They are not true, because He is truth and they are not of Him." Therefore, to be well and sinless, simply give up your false belief in the reality of sin and disease. Comfortable philosophy of life—to get rid of sin, sickness and all our woes by simply denying their existence! How easy! If only we could!

But we must call a halt in quotations, lest this paper become a small book itself. Much more of the same irrational and contradictory nature might be adduced from the pages of this extraordinary work, which devotes some five hundred pages to the discussion of things that, according to the fundamental propositions and definitions laid down at the beginning, *cannot exist*; and which claims to bring healing to people who cannot be sick.

To sum up in a single word, the whole system of Christian Science is a piece of purely *deductive* reasoning, based on *a priori* assumptions, and utterly indifferent to the facts of expe-

rience and the testimony of consciousness, in fact, denying the existence of one and the validity of the other. It seems to us a monumental delusion, sincerely believed by many, no doubt, but nevertheless a delusion. It is a strange mixture of the pure idealism of Berkeley and the bold pantheism of Spinoza (though it repudiates pantheism in its text), but lacking the keen rationalism and consistent reasoning of both these great philosophers. Claiming to be "Christain," it seems to us utterly subversive of the teachings of Christ; while the "key to the Scriptures" it offers seems like the skeleton key of a robber of its sacred treasures. And as for being "Science"—heaven save the mark—there is little in either its method or logic that will bear the light of true science, as it seems to us. Science is usually defined as "knowledge gained by systematic experiment and reasoning; knowledge co-ordinated, arranged, and systematized." But here is a so-called "science" whose "knowledge" is gained not by systematic experiment and observation of facts, but by calm indifference to facts, by abstract reasoning and the use of the imagination; whose knowledge is not "co-ordinated, arranged, and systematized," but disjointed, fragmentary and often contradictory.

The *method* of true science, since the days of Bacon, has been, first, the wide and careful observation of *facts*, and then the co-ordination and arrangement of these facts in an orderly system, with the purpose of discovering the principles and truths that underlie and explain the facts. But here is a pseudo-science that starts not with *facts*, but with *a priori* definitions and assumptions, and then attempts to *deduce* a system of philosophy that calmly *ignores* the facts of life, or else would do them violence in the attempt to conform them to the unproved premises upon which the system is built. In the modest judgment of the present writer, Christian Science, so called, is neither scientific nor Christian, but a huge delusion that, *philosophically*, is false in both principle and method; *ethically*, is subversive of morals; and *theologically*, is unbiblical and unchristian.

II. And yet this system thrives and grows wonderfully. How shall we account for it? We remarked at the outset that there must be some germ in it to account for its persistence. Amid all this wilderness of words, this jumble of contradictions, this

strange hodge-podge of obsolete philosophy and false logic, what is the real truth in the system that gives it life, the real power that produces growth? The answer, it seems to me, is to be found, without doubt, in the *therapeutic value* of the cult. False as Christian Science may be in its philosophy, inconsistent as it may be in its logic, and unmoral as it may be in its ethics, —nevertheless as a *system of healing* it is undoubtedly often very efficacious. Herein lies the real value of the system, the germ of truth that is vital and produces growth. If only this truth can be brought out from the mass of rubbish that conceals it into the light of true science, and can be scientifically used by intelligent physicians, it will prove a blessing to mankind.

Therapeutically, Christian Science works—there is no use in denying it. Cures are undoubtedly wrought by its agency—many of them remarkable cures. There can be no doubt that stubborn cases that have resisted the most skilful treatment of well known physicians are sometimes cured by Christian Science treatment. And it behooves us, as physicians, to take note of this fact, and discover, if possible, the principle or law by which such cures are wrought. For men are ever ready to seek and follow those who can bring them relief from pain and release from sickness—no matter *how* it is done, no matter how false may be the philosophy of the agent who accomplishes the result. Just as long as Christian Science does this, and is not superseded by a more rational and philosophical system, will it continue to survive and grow.

The important question for us, as physicians, to consider is whether this really efficacious method of healing is to be left entirely to the adherents of a “science,” falsely so called, to the followers of a semi-religious, semi-philosophical system of belief that will not bear close scrutiny or the light of reason, who do their work in ignorance of the laws of God; or whether the one vital truth of the system—its therapeutic value—is to be brought out from the darkness in which it is enveloped into the pure light of true science, and scientifically taught and utilized by the well educated physician. He is the man most vitally interested in the matter, and who ought to be posted on the subject. If this is a truth, which Christian Science emphasizes, it can be correlated with other truth and brought under the domain of law. With all due respect to the author of *Science and Health*, and to her followers, many of whom, no doubt, are intelligent

and honest and cultured people, we do not think this has been done. The explanation does not explain; the "science" fails to meet the test of reason and well founded knowledge.

What, then, to come to the vital point at once, is the principle or law by which Christian Science cures are wrought? And what is the place and relation of this truth in a therapeutic system? The answer to the first of these questions, it seems to me, may be found in a single word—"Suggestion," mental suggestion, whether by the patient himself or by his attendants. The law of mental suggestion, in our judgment, explains these cures. Call it "metaphysical" or "mind healing," if you please; call it "faith cure," if you will,—though I think that a misleading term,—or call it by any other name you prefer,—it is still a *cure*, and a cure accomplished in accordance with some natural *law*.

This law of suggestion is too little understood. Indeed the whole subject is still in the embryonic state, only the more recent psychology having anything definite to say about it. This is why there is such crying need for scientific men in the medical profession to investigate the whole subject and bring it into its proper scientific relations, and not leave it to a pseudo-science that masquerades under the name "Christian."

This paper is already too greatly extended to go into this phase of the subject at any great length. We can only call attention, in passing, to a few of the facts on which this law is founded, leaving it for each one to investigate the matter for himself, and if he finds it rational and valuable to put it to practical use.

The theory of "mental suggestion" is based upon the existence of what is usually called, for the lack of a better name, "dual mentality"—*i.e.*, the existence in every one of an "objective" or conscious mind, and a "subjective" or unconscious mind. These terms, of course, are not intended to imply the existence of two separate minds, but rather of two distinct phases and functions of the human mind. While this dual theory of mind has not been established with scientific accuracy or certainty, it receives from most modern psychologists strong support.* In any case it serves as a working theory, as

* There is no evidence whatever in Mrs. Eddy's book that she is at all familiar with the investigations of modern psychologists, or has ever heard of this theory of dual mentality.

it explains more of the facts than any other theory yet propounded. Of course, the whole subject is a difficult one and borders on the realm of the, as yet, occult and mysterious. But, gradually, pertinent facts are being gathered and correlated, and the underlying principles are slowly emerging into the light. The law of mental suggestion is now pretty generally acknowledged to be the best explanation of the facts, and a scientific statement of truth.

These facts and phenomena are of many kinds, but all seem to point to a sort of dual mentality existing in man. This has been dimly apprehended for many years, and recent investigations of psychic phenomena have brought out many new facts and thrown a new light upon a confessedly difficult subject. We can merely refer to these different lines of investigation, without entering into details at all. Indeed, that is unnecessary, as you are, no doubt, more or less familiar with the subject.

Some of these facts are gathered from psychic phenomena of dreams; some from somnambulism; some from magnetism and some from spiritualism, so called; some from trances and other peculiar psychic states in disease and health; some from hypnotism or telepathy—but all point to the existence of extraordinary powers within man, apart from and often superior to his normal mind. The phenomena of hypnotism, especially, have been very carefully studied in recent years, and have been found rich in material that throws a strong light upon this mental duality. No doubt, most of you have seen practical demonstrations of hypnotism and its really remarkable phenomena. Most of you remember a demonstration given before this Club, where the subject was hypnotized and we were permitted to see and study for ourselves the evidence of this remarkable state. Among other things you remember how pins were deeply thrust into various parts of the subject's flesh—through the lip, the ear, and into the limbs and body—without consciousness of pain on the subject's part; and how, while in the hypnotic state, he performed feats of strength impossible to the same man in his normal condition. Suffice it to say that all these facts seem to point conclusively to the existence of a dual mentality in man, to the possession, by the unconscious mind, of extraordinary powers.

Perhaps no investigator in America has done more for the elucidation of this difficult subject than Thomas J. Hudson, who thus formulates the hypothesis of dual mentality and sums up the results of recent psychological investigations (*Law of Psychic Phenomena*, by Thomas J. Hudson): "The first proposition relates to the dual character of man's mental organization. That is to say, man has, or appears to have, two minds, each endowed with separate and distinct attributes and powers; each capable, under certain conditions, of independent action. . . . For convenience I shall designate the one as the objective mind and the other as the subjective mind.

(2.) "The second proposition is that the subjective mind is constantly amenable to control by suggestion."

(3.) "The third or subsidiary proposition is that the subjective mind is incapable of inductive reasoning."

Subsidiary proposition: "The subjective mind has absolute control of the functions of the body."

This hypothesis, thus boldly formulated, explains most of the phenomena to which reference has been made, and gives us a clue to the enormous importance of mental suggestion as a therapeutic agent, and incidentally explains how Christian Science accomplishes its cures.

It is matter of common knowledge, to take an illustration from the practice of medicine, that almost *anything* having a reputation as a remedial agency will in reality *effect* many cures. Certain shrines or sacred relics are reputed to have healing virtue in them, and, as a matter of fact, cures are wrought in the case of many who believe in their healing power. So we have pilgrimages to Lourdes and other sacred springs, where miraculous cures are claimed to be wrought, and where, no doubt, many wonderful cures are in reality accomplished. So also men carry amulets and charms that are reputed to have the power to ward off disease, or cure it if contracted. I have heard of a "sure cure" for rheumatism that consists simply of carrying always in one's pocket a small potato! Another "sure cure" for piles is to carry a horse-chestnut in the pocket! (Perhaps our ultra high-potency friends might claim that the cure, in the latter case, was wrought by the proximity of the *æsculus Hippocastium*, as that is a remedy used for piles!) Many other harmless and certainly unmedicinal trinkets are thus carried

about the person by many credulous people, who believe in their prophylactic or therapeutic power. And no "patent medicine," however worthless, that is well advertised and persistently "boomed" to the public need go long without many glowing recommendations from those who have been helped or even cured of their ills by its use. This is so well known that it has ceased to seem even strange. The "quack" and the patent medicine vendor are ever with us, and the dear public seems ever ready and eager to increase their fortunes.

Is it the *drug* that cures in these cases? Is it the potato or horse-chestnut or the harmless charm carried about the person that heals? Or is it the *belief* of the one who wears the charm or carries the potato or takes the worthless concoction that effects the cure? No doubt the latter is the real agent. What the patient *believes* about the charm or sacred relic or worthless nostrum—in *that* is the healing power.* Nay, we may go further and admit that often it is the patient's *faith* in the *physician himself*, in his knowledge and skill and confidence, rather than in the actual drug used, that accomplishes the cure. Every physician occasionally prescribes "sac lac" or some other "placebo," assuring the patient meanwhile that he is making progress and will get well—and he *does* get well, without further use of drugs. And this is no discredit to the physician either, nor any admission that drugs are valueless; but only a recognition on the part of the scientific man of another and a higher law of cure than that wrought by drugs alone.

The same truth is blindly recognized by the laity in the common saying, that such and such a physician is liked because people have confidence in him; and that such another physician is *not* liked because that confidence is lacking. It is the faith in the physician and his knowledge, no less than his drugs, that plays an important part in the cure. And this is just because the belief of the objective mind in the man himself and in the means used, acts as a constant auto-suggestion to the unconscious, subjective mind, which, remember, "has

* From such facts as these Mrs. Eddy argues—illogically, as it seems to us—that the *cause* of disease is purely mental, that it is, in fact, a false belief; and that to cure disease it is only necessary to get rid of the false belief. There is another and a better explanation of both the cause and the cure of disease, even where no drugs are used.

absolute control of the functions of the body," and so acts as a powerful and constant therapeutic agency. It is, no doubt, often true that the physician's manner and confident assurance have as much to do with the favorable outcome of certain cases as his medicines. This is explainable by the same law of mental suggestion, though the suggestion, in this case, comes primarily from the physician. The laity recognize this truth also in the familiar statement, often heard, "I feel better just to have 'Dr. Cheery' come into the room and talk to me." Undoubtedly, the doctor's visit and cheery manner and confident hope do as much good often as his medicines.

Now apply all that has been said to the Christian Scientist and his method of cure. It all amounts to a system of suggestion and auto-suggestion, so far as its therapeutic value is concerned. I am aware that the author of *Science and Health* vehemently denies this, and relegates hypnotism, with mesmerism and drugs, to the domain of evil, claiming that any attempt to heal by such methods is only a case of a greater error overcoming a lesser one. Nevertheless, we believe the metaphysical healing of Christian Science can be rationally explained only by the law of mental suggestion. To deny sin, to deny sickness and pain, to deny their reality and very existence, and to plead God's all-ness is the epitome of their whole method of cure.

The healer enters the sick room with one dominating idea or belief in his mind; namely, that there is no such thing as disease, and therefore the patient cannot be sick. His whole aim is to urge upon the patient this idea; to convince him, if possible, that there is no matter, that all is mind, that sickness is a delusion, and that he will, in fact, be healed if only he can bring himself to this full belief, that he really *is* well, just so soon as he has eliminated the error of false belief from his mind. And remember that, as a rule, all the conditions favorable for telepathic suggestion are present at the time. Most successful Christian Science healers are active telepathists, though they will not admit it. The healer's own mind being thoroughly imbued with the idea that there is no such thing as matter or disease, and that hence the patient is not sick, but only deluded, he showers in these mental suggestions upon the mind of the patient, whom he has first endeavored to render passive

by shutting out all adverse thoughts and fixing his attention wholly upon the one dominating thought, "There is no such thing as sickness." Indeed the ability of the Christian Scientist as a healer depends upon his ability thus to persuade both the objective and subjective mind. A careful reading of Mrs. Eddy's chapter on "Christian Science Practice" will discover, I think, that the secret of its success therapeutically depends wholly upon mental suggestion. "Become conscious for a single moment," says the author, "that life and intelligence are purely spiritual—neither in nor of matter—and the body will utter then no complaints. If suffering from a *belief* in sickness, you will find yourself suddenly well" (p. 319). "Admit the existence of matter, and we admit that mortality (and therefore disease) has a foundation in fact. Deny the existence of matter and we destroy the belief in these conditions, and with it disappears the foundation of disease" (p. 367). This is one of many passages that plainly admit that the whole system falls to pieces if once the existence of matter is admitted. "To the Christian Science healer sickness is a dream, from which the patient needs to be awakened. . . . Explain audibly to your patients (as soon as they can bear it) the utter control which mind holds over the body. Show them how mortal mind seems to induce disease by certain fears and false conclusions, and how Divine Mind can cure by opposite thoughts" (p. 415). This is pure mental suggestion.

Much more to the same effect might be adduced, but I think this is sufficient to establish the contention that Christian Science is based on the law of mental suggestion. Much more rational and scientific is this explanation than the preposterous one of the author of *Science and Health*; namely, that there is no such thing as matter, and therefore no disease; that both are mere delusions, dreams of mortal mind. Mrs. Eddy scorns hypnotism as an agency of error and the evil one—only there is no evil one—but with all due respect to her learning, there is no evidence in her book that she is at all familiar with the discoveries and facts of modern psychology. And as for biology, physiology, anatomy, pathology, and chemistry, of course, they are all delusions and errors, for they deal with that which has no real existence. Is it any wonder that such views lead

her to sum up human life as "the ghastly farce of material existence?"

Let me close this altogether too lengthy paper by emphasizing briefly the great importance of utilizing this mighty force of suggestion, both in maintaining one's own health and in bringing health to the sick. And here we can learn a valuable lesson from the Christian Scientist. Says a recent writer, who vigorously criticises Christian Science, and yet recognizes its value therapeutically: "We maintain that the Christian Scientists practice methods of maintaining health and combating disease that are superior to the methods of living of the adherents of any of the three great schools of medicine. This is because they have such a successful way of putting into operation the great creative and curative faculties of the mind, and making each patient his own physician. He believes in his own inherent powers. He rejoices in his strength." (*Mind, Power and Privileges*, by A. B. Olston.)

This is a valuable suggestion in the preservation of one's personal health. To the Christian Scientist it is a *sin* to acknowledge disease—he must get rid of the error of mortal mind. And so he constantly exercises his mind with thoughts that deny the existence of disease, until he reaches a frame of mind where thoughts *adverse* to health have little chance to enter. His mind is fortified against the attacks of disease. He lives in a healthy mental atmosphere, one that is free from the miasma of doubt and fear. We all realize that many people, on the contrary, undermine their health by worrying about the possibility of sickness and other ills. Not only so, the Christian Scientist is surrounded by helpful influences that cultivate and maintain this mental attitude toward disease. All his Christian Science literature emphasizes constantly this denial of disease, so that his mind constantly dwells on it. Then he goes to his church where, surrounded by many holding the same views, and in a most favorable frame of mind, the same lesson is inculcated and vigorously carried home to his mind that there is no sickness—he must deny it. He knows that thousands of others are thinking the same thoughts at the same time. Encouraging testimonials finally clinch the matter with him. Here, you see, are all the conditions favorable for tele-

pathic suggestion, and undoubtedly the faith of the weak one and the doubter are strengthened thereby.

This, then, is one valuable lesson we may learn from Christian Scientists: To cultivate the right mental attitude with reference to disease, an attitude of fearlessness and confidence, to keep out of the mind steadfastly all suggestions adverse to health, and to encourage constantly suggestions conducive to health. These healthful auto-suggestions of the objective, conscious mind will undoubtedly act upon the subjective, unconscious mind, amenable as it is to such suggestions; and will enable it, by its control of the bodily functions, actually to keep the organism in health, or even to restore it to its normal functions when diseased. This is a good rule of health for each one of us to adopt and cultivate for our own personal benefit.

And the other equally valuable lesson we may learn is to make use more largely in our practice of this same power of mental suggestion, for the benefit of the sick entrusted to our care. Let us remember that the subjective, unconscious minds of our patients are amenable to our mental suggestions—to what degree we are only just beginning to appreciate. If it be true that “the unconscious mind has absolute control of the bodily functions,” what a mighty power for good we should be able to exert by bringing to bear upon it helpful and healthful suggestions from our own minds. Surely here is a rich field for further experimentation and discovery. And how important it is that this mysterious power—so potent for good or ill—should be understood by the intelligent physician, and scientifically used by him, without indulging in the false philosophy, the inconsistent logic, and the stubborn blindness to facts exhibited by most of the followers of the author of *Science and Health*. If so much can be done both to maintain health and combat disease by the deluded followers of a false philosophy—done blindly, unscientifically, and in ignorance of the laws of mind (which are the laws of God) by which their results are attained—how much more *ought* to be done by the trained and scientific physician, intelligently working in harmony with the laws of the Divine Mind.

THE RELATION OF SANITARY SCIENCE TO THE ALCOHOL DISEASE.

BY A. W. ATKINSON, M.D., TRENTON, N. J.

Read by title before N. J. State Hom. Medical Society, Oct. 1, 1902. Read before Hahnemann Clinical Club, Trenton, N. J., Dec.

SANITARY science is the science which includes a consideration of all that can be done for the prevention of disease and the promotion of the public health. The practicing physician must be, and is, the leader and director of all sanitary science work, and it is my purpose to urge upon you the fact that the prevention of the alcohol disease must be included in that work.

No, gentlemen, this is not a temperance lecture. I am not going to discuss the "liquor habit"—there is no such thing as a liquor "habit." There are persons, few in number, with whom it is a *custom* to imbibe alcoholics at certain times, and they do so or not as suits their pleasure or convenience; there are others who, under certain conditions, are compelled to drink alcohol in some form, whether they wish to or not. These latter have the alcohol disease,—they are the true dipsomaniacs, and it is to this condition only that the term dipsomania can be rightfully applied.

The symptoms commonly accompanying and following an attack of the disease—the brain excitation, the digestive and respiratory disturbances, the muscular inco-ordinations and the remoter results—are usually gathered under the one term, alcoholism. But the ever-present, the essential symptom of what I call the alcohol disease, is that *craving* for more. Without this symptom there are almost never any of the other symptoms above enumerated under the term alcoholism—in fact, this "craving" may be considered the disease—the rest are simply the usual accompaniments or results.

An attack of the alcohol disease is as well defined as an attack of rheumatism; there is a predisposition on the part of the patient, either congenital or acquired, one attack predisposing to another; there is an exciting cause, the ingestion of alcohol; there *must* be exposure to the exciting cause. The number of

exposures necessary to produce an attack varying with the susceptibility of the patient and the form in which the alcohol is administered.

The symptom of the disease is, as I have said before, the craving for more alcohol, this craving varying in intensity with the above-mentioned conditions.

As a result of frequent attacks there seems at times to be engendered in some patients an added susceptibility which, with the usual natural susceptibility, gets the patient into such an unstable nervous condition that an attack is precipitated by an almost insignificant amount of alcohol. It is these patients, often called chronics, who give the most trouble to themselves, their families, and their friends. This class of patients sorely need the protecting environments of an asylum, a place where there is a cessation, or at least a lessening, of the number of exposures to the cause of the troubles.

It is probable that a sufficient number of attacks will get anybody into this condition; their "will-power" and reiterated denials to the contrary notwithstanding.

Recovery from an attack is, after the withdrawal of the cause, spontaneous, though not always complete, especially after a severe or long-lasting attack. And it is the taking away of the cause, the stopping of the ingestion of alcohol, only which will allow of a recovery and stop the craving. The common fallacy, and one which it has here been my purpose to expose, and I hope yours hereafter to destroy, is that "will-power," so called, can stop the disease—*i.e.*, can stop this craving once an attack has been incurred. The *will* can no more stop that craving than it can *stop* the eruption of smallpox. *Habits* can be stopped by an effort of the will, customs can be dropped at pleasure or convenience, but this craving for alcohol is neither habit nor custom; it is a disease, a neurosis, a psycho-neurosis caused by the ingestion of alcohol. It is to be cured *only* by taking away and keeping away the cause, and fortunate it is that the cause is known, is tangible, and a cure can be produced by taking away this cause, and the disease prevented absolutely by keeping it away.

True this craving may sometimes, though rarely, be resisted by the will. But as the will-power in the dipsomaniac is usually the first brain function to be disordered, it is, *from our point of view, not to be trusted in the least.*

The craving is also sometimes ameliorated by violent digestive disturbances, such as nausea or vomiting; and during this temporary amelioration recovery from this attack may be attained. It is this fact which forms the basis for the so-called Keeley cure, which consists essentially in so deranging the stomach with amorphia or kindred drugs that it will not tolerate alcohol; and while in this condition, the patient being supported by nerve tonics and good food, the craving passes away.

A marked feature of the disease is the difference in susceptibility of different individuals. In some an attack being brought on by the taking of a small amount of alcohol and only a few times, while others are able to take large quantities at frequent intervals without incurring an attack. So marked indeed in some individuals is this latter condition that they may be said to be almost immune, but I think that, without exception, a sufficient number of exposures to alcohol will at last bring on an attack, so that in reality the immunity is not actual, but only relative, and, therefore, unreliable. It is the failure to realize this great difference in susceptibility which causes so many people, especially the young, to expose themselves to the disease under a false conception that the so-called temperance of their tiptling neighbor is due to manliness or will-power or what not. They do not know that the reason he can take alcohol so frequently in such seemingly large quantities, without incurring an attack and a resulting intoxication, is that the neighbor is so slightly susceptible to the disease; while they may, without any means of knowing beforehand, be very susceptible, and thus run tremendous risks by taking alcohol, in any quantity, in any form, or at any interval.

And it is almost always the callousness, or rather the ignorance of these partial immunes, which renders possible the maintenance of those places which are a constant menace to those whom they are wont to call their weak-kneed neighbors.

Just at this point an amazing spectacle presents itself. On the one hand we have local boards of health using the constabulary power conferred upon them by the State to check and prevent the ravages of the infectious diseases, while on the other hand we have the State granting to men the license to cause, spread and prolong a disease which costs more in money,

lives and happiness, and is productive of more misery, than all the contagious diseases together.

The only plausible explanation of this ridiculous and ambiguous position, assumed by a supposedly self-protecting Commonwealth, is the fact that the community at large does not realize that all this poverty and misery is the result of the alcohol *disease*, instead of the drink *habit*, as it is usually contemptuously called.

An unfortunate symptom, common to all neurotic poisonings, and almost always present during the incipient stage of the disease, is an enticing, seductive, transient exhilaration. If the indulgence be persisted in, the enticement changes to craving, the desire to compulsion, and an attack of the disease is on. Oh! the difference in the morning,—the exhilaration gives way to dejection, pleasure to depression, and, calmly considered, all will admit the game is not worth the candle. The value of any alcoholic used as a beverage in no wise compensates the patient for the risk run of incurring the alcohol disease.

The points I wish to impress upon you are that the alcohol craving is a disease (and terrible we all know), the result of drinking alcohol. Since it is a disease, with a well defined cause, and can be prevented, and one to which anyone may be susceptible, it is imperative that we as physicians should use every means in our power to warn the public against this most treacherous and debasing of diseases. As physicians we must be guarded in our prescriptions of both drugs and stimulants, lest we expose a susceptible patient to this dread scourge, and should show all people how and why they should protect themselves against it.

THE PRESENT STATUS OF HOMEOPATHY.—Charles Gatchell, M.D., the new editor of *Clinique*, speaking of the union of the schools, submits the following for the consideration of his readers: 1. There is enough in homœopathy to be worth saving. 2. If homœopathy is to be saved, it must be saved in the house of its friends. Until the old school abandons its sectarian attitude, and incorporates into the great body of medicine all that there is of homœopathy, there must be an organization devoted to the object of conserving and developing the methods that Hahnemann exploited. The logic of the situation demands that we still maintain our organization.

PARESIS.

BY A. J. GIVENS, M.D., STAMFORD, CONN.

(Read before the Homœopathic Medical Society of New York State, February 9, 1904.)

PARESIS or general paralysis of the insane is a disease characterized by progressive loss of muscular power, a gradual wasting of strength, a steady impairment of mind that leads to dementia, and by a continuous decay of the whole organism that terminates in death, usually within three years from the time its first symptoms are observed.

Paresis has been variously defined. According to Kraepelin it is a chronic progressive psychosis of middle life, characterized clinically by progressive mental deterioration with symptoms of excitation of the central nervous-system, leading to absolute dementia and paralysis; and, pathologically, by a fairly definite series of organic changes in the brain and spinal cord. Clouston earlier describes it as "a disease of the cortical part of the brain, characterized by progression, by the combined presence of mental and motor symptoms, the former always including mental enfeeblement and mental facility, and often delusions of grandeur and ideas of morbid expansion or self-satisfaction; the motor deficiencies always including a peculiar defective articulation of words and always passing through the stages of fibrillar convulsions, inco-ordination, paresis and paralysis, the disease process spreading to the whole of the nerve tissues in the body, being as yet incurable and fatal in a few years."

Regis says of it: "Paresis is a cerebral disorder, sometimes cerebro-spinal (diffuse, chronic, interstitial, meningo-myelo-encephalitis), essentially characterized by progressive symptoms of dementia and paralysis, with which are frequently associated various accessory symptoms, and especially an insanity of the maniacal, melancholic or circular type."

Meynert gives a division of the varieties of paresis which includes eight distinct forms of the disease:

1. Simple progressive dementia with the usual motor impair-

ment which accompanies it; but, excepting in cases of hypochondrical depression not necessarily exhibiting other mental symptoms than dementia.

2. With the expansive delusions and the distinctive motor disturbances which appear simultaneously and are progressive, constituting the "classic" form of general paralysis. The mental state is usually one of self-satisfaction and exultation, but there may be depression.

3. Of the same type as the last, but failing in its steadily progressive character through arrest of the active process. The remissions, which seldom last so long as a year, raise hopes of recovery, but still they manifest unmistakable impairment of the reasoning faculties. The psychic disturbances are much greater than can be accounted for by the atrophy of the brain alone.

4. Cases in which the characteristic exaltation and grand delusions reach such an astounding height that manifest motor symptoms are looked for with confidence from day to day and yet may not appear for even a year, any slight inco-ordination naturally being obscured by the general muscular disturbance. Meanwhile there may be such an improvement that the patient leaves the hospital for awhile, once, but rarely twice, on the responsibility of his family, returning with marked motor symptoms of increasing severity.

5. A very rare form, with alternate symptoms of exaltation and depression of the type of circular insanity.

6. With early furious delirium, painful hallucinations, confusion, and incoherence somewhat resembling acute delirium.

7. Progressive general paralysis, in which the characteristic indications appear secondary to other forms of insanity; for instance, after paranoia or melancholia, first described by Hoes-terman.

8. The combined form with sclerosis in the whole cerebro-spinal tract, the symptoms of tabes or spastic paralysis predominating, according as the posterior or lateral columns of the spinal cord are chiefly involved. The ascending type, in which the cord is first affected, is rare. Optic neuritis ending in atrophy and paralysis, especially of the ocular muscles, may precede marked mental symptoms.

In about one-half of all the cases that have come under my

observation during the past seventeen years, a history of syphilis has been obtained. Some years ago the theory was advanced that all cases of paresis were due to syphilitic poison, but this is not true. It is well to remember that the two diseases are quite distinct and that paresis is not a late manifestation of syphilitic infection, and is not in any sense a form of brain syphilis. The specific infection may have prepared the soil for later disease by rendering the tissues less resistive to circulatory disturbances and congestion, and more vulnerable to the influence of profoundly degenerative processes.

Brain workers who suffer from overwork, overstrain and great anxiety, together with loss of sleep and continued exhaustion, furnish the most numerous examples of paresis. The clergy, the Quakers, the Irish in Ireland, the Scotch in Scotland, and the Negroes before the war have at all times been singularly free from this disease. But under modern conditions of stress and strain in large cities, Scotchmen, Irishmen and Negroes readily acquire it. In Egypt, where syphilis abounds, there is no reason to suppose that paresis ever exists; and in Asia it is also unknown. It occurs most frequently among the active and energetic who are fond of the good things of life, among those of the so-called sanguine temperament who are good-natured, self-indulgent and generous to others.

There is probably no disease that begins more gradually. Its earlier manifestations often pass unnoticed; in fact, in many instances they are as yet unknown. The prodromal period varies within wide limits, but it usually extends over months or even years. The mental symptoms vary to such an extent that paresis may be mistaken for almost any other form of insanity or for simple neurasthenia. While several varieties of paresis have been noted, in general there are three distinct types: the exalted, the demented, and the depressed. The expansive, jovial parietic of some years ago is less frequently seen nowadays; and cases that begin as melancholia or show signs of dementia almost from the beginning are more and more common. A correct diagnosis may be difficult in the early stages. The chances are, however, that the case is one of paresis when a man in early middle life shows a recent and sudden alteration in his whole character, with great restlessness, marked irritability, forgetfulness, total disregard of the needs of others, to-

gether with extreme egotism and motility of ideas, and physical symptoms such as pupillary anomalies, alterations in the deep reflexes and unsteadiness of gait.

The earliest manifestations of paresis that are sufficiently marked to attract attention often present a certain likeness to those of ordinary neurasthenia. In both there is exhaustion of the brain and nerves, inability for steady work or thought, poor appetite, general sluggishness and irritability. But in neurasthenia the pupils are not contracted to the size of pin-heads nor are they unequal; the tremor seen in the fingers and eyelids is fine, not jerky; and there are no changes in enunciation or handwriting. The neurasthenic patient pays marked attention to his own symptoms, which seem to him alarming and of a grave nature. He deplors his physical weakness and want of will, and earnestly desires to get well. The parietic, except in the beginning and before others are impressed by his altered speech or unusual conduct, never considers himself ill; pays no attention to his symptoms and thinks it impossible for him to err. He never seeks to excuse himself, being unconscious of wrong-doing. Attention is the faculty that is impaired earlier than any other; out of this defect grows the loss of memory that often results in the unusual actions of the parietic, in his lack of courtesy, his poor business management and inability to meet obligation or keep engagements. Forgetfulness is the cause of this change in conduct. The parietic soon loses the memory for dates; and the events of to-day or yesterday are somewhat vague and shadowy. What goes on around him becomes less and less important as his false ideas become more definite.

The usual habits and the disposition undergo a gradual change. The victim of paresis begins to appropriate various articles within easy reach, thinking everything belongs to him, tells unnecessary and most palpable falsehoods, fails to appreciate the value of money, and commits various indiscretions without method or satisfaction. His judgment fails, his honesty departs, he is altogether different from his true self. This depressed, abstracted and irritable stage may last a few weeks or months, or perhaps from two to three years, before the first outbreak of maniacal excitement. A lively and agreeable man may for a long time conceal an undercurrent of anxiety from even

his most intimate friends. But at last, through the effects of disease, he is unable to hide his real feelings. Then he becomes morose, worries more than is natural, falls a prey to insomnia and may sink into a profound melancholy, which is often concealed by feigned gayety and buoyancy of spirits. Concealed anxiety forces the patient into frequent outbursts of anger. He is now uncertain and easily disturbed, ignoring little civilities about him because deeply absorbed in his own restless and fantastic thoughts. With the loss of self-control and the development of an exalted state of mind, friends perceive for the first time that the changed man is really ill and realize the necessity of seeking medical advice. At this point medical observation readily discovers characteristic changes which are the chief physical signs of paresis. With certain patients, delusions of grandeur or ideas of great personal importance and power are observed among the earliest symptoms of the disease. The expansive delusions of paresis are characterized by a sense of increased perfection. The typical paretic may announce that he is the handsomest man or the best singer in the world; or he is the best runner on earth or the writer of the most stirring sermons ever put on paper, or is worth fabulous sums of money. The delusions may be astonishing and absurd. The deductions drawn from them are natural under the influence of a false belief characterized by a sense of the patient's own increased importance and power. The exalted ideas of the paretic are the outcome of an unrestrained imagination that is no longer under the control of reason.

As a means of diagnosis the eye symptoms are of great importance. The pupils may be exceedingly small, in a condition of spastic myosis, fixed on exposure to light and not expanding when the eye is shaded. One pupil may be larger than the other. Even when in rare instances they are equally dilated they fail to respond to light. These conditions are seldom present in any form of insanity except paresis. The eye itself may be restless and unsteady, owing to muscular impairment. In from one-quarter to one-third of all cases in the terminal stage, optic changes of an atrophic nature are present.

Alteration in speech is a prominent feature of this disease. Heard a few times it is easily recognized. There is marked tremulousness of the lips and tongue while speaking, similar

to that of alcoholism or of great excitement in a highly sensitive person. This tremulousness is most marked on attempts to speak rapidly or to protrude the tongue. There is a slight hesitancy in speech, as well as an evident effort to overcome a difficulty of articulation. Stammering occurs especially in words containing *k, l, m, n, r* and *e*. The countenance also undergoes a change. The lines of expression are faint or nearly effaced. The skin is sallow, greasy, wax-like; and flabby when the patient is stout.

The tremor of paresis affects all parts of the body, but it is most marked in the face and tongue. It is a fine fibrillary tremor that becomes jerky when voluntary movements are made, as in speech, in smiling, wrinkling the forehead, showing the teeth or protruding the tongue. Later, it is found in the small muscles of the hands and feet. An indication of the incipient tremor is manifested in the handwriting, in which alteration first appears in the upstroke, making a line like the irregular edge of a saw.

Knee-jerk is altered in rather more than half the cases, a little oftener exaggerated than abolished. All the tendon reflexes may be greatly exaggerated. There may be ankle-clonus, quadriceps clonus, jerk and clonus of the jaw, together with extreme wrist-jerk and elbow-jerk. There is unsteadiness of gait, a shambling uncertain step that is less unsteady than in locomotor ataxia. It suggests age rather than disease; and is an impairment of muscular power instead of a true paralysis. There are trembling movements in the limbs, varying in degree and frequency. In walking the feet are not raised in the normal way, the steps are shorter, the legs are wider apart than is usual, and turning is accomplished with much deliberation. Going up and down stairs is difficult, and dancing impossible. There is impairment of all the muscles of the body. Ataxia marks the effort to stretch out the hands and arms, and to stand with the toes together and the eyes shut.

A characteristic feature of paresis is the occurrence of congestive attacks. These are variable as regards frequency and the stage of the disease at which they appear. In some cases they occur every few weeks; in others only a few times during the whole course of the disease. These seizures may take place at any period; sometimes they are observed in the last

stage only. In very rare instances they are the first symptoms to be noted. These congestive attacks resemble apoplexy; and the patient falls suddenly with complete loss of consciousness. An apparent paralysis of one side follows, from which he recovers and may seem in as good a condition as before. As far as life and general movement are concerned these attacks resembling apoplexy seem to exercise no particular influence upon the course of the disease itself, though death may occur in one of these seizures. In three-fifths of all cases, the attacks usher in the second stage of the disease. There is often a slight rise of temperature at all times, even when the patient is quiet and undisturbed, varying from one-half degree to two degrees. In the congestive attacks the temperature may rise higher, sometimes to 104 degrees or more. The attacks that resemble apoplexy differ from it in one important particular. In hæmorrhagic apoplexy the patient may die in the first attack, or in the second or the third. In paresis there may be any number of apoplectiform seizures from which the patient may recover completely; or else rally with a resulting increased weakness that is more or less marked. In the latter instance, the paresis in all the muscles will soon become an increasing paralysis; and the period of complete dementia is not distant.

The diseases from which paresis is to be distinguished are neurasthenia, paralysis due to cerebral hæmorrhage, embolism, tumor of the brain, alcoholic insanity, senile dementia, and muscular atrophy. The presence or absence of the convulsive tremor in the muscles of articulation at the commencement will aid in clearing up the diagnosis. So, also, will the general and progressive course of the loss of co-ordination and the peculiar mental facility and extravagance. While the duration of the disease is comparatively brief, about three years on an average, there are well authenticated instances where paresis has lasted ten or fifteen years. Such examples are extremely rare.

When paresis has definitely declared itself, treatment consists in hygienic care and medical supervision, and usually a complete change of environment. It is in the first stage that permanent relief can be hoped for, when conditions are most favorable for the arrest of the disease; for there is such a thing as an arrested paresis, which does not progress for many years, if

at all. This favorable form is rare, but it does exist. And one thing about it is positive: Remissions do not occur in neglected cases or when the patient is left to himself. The hope is ever present when a new case presents itself that it may prove to be of this nature, allowing the patient to return to his home after a period of rest and treatment, and resume business for a time as before the inception of his malady. Voisin, Meynert, and others have expressed the belief that paresis may some day in the future be cured in its early stage. In the treatment, the patient's surroundings should be as completely changed as the sands of the hour-glass are when reversed and turned upside down. The reduction of mental and physical work is a necessity. Then comes abstemious living, with the avoidance of all stimulants and excesses. Early hours, sufficient sleep, a suitable diet, careful attention to the maintenance of regularity in the various functions of the body, together with systematic massage, hydrotherapy, and the excellent devices of a partial rest-cure, furnish the general outline of a rational plan of hygienic treatment. The brain needs to be put in splints, as one authority suggests; and that is done by the repose and quiet thus outlined, and not through the excitement, hurry and possible annoyance of going from place to place, as in traveling. Dangers from suicide, assault, or the risk of dissipating property must ever be borne in mind. Catastrophies cannot always be averted when the patient is without the restraining care of experienced skill and discrimination.

In this early stage the diet should be light and consist of articles that can be easily digested. Paretic patients as a rule have voracious appetites and are seldom satisfied by an ordinary amount of food. The regulation and restriction of nourishment suitable to their state present difficulties that require tactful management on the part of the physician. Meat and all stimulating foods should be avoided or restricted in use and amount. Fish, eggs, cereals, vegetables and fruit can be freely used. In the later stages care must be exercised that the patient does not choke or food enter the trachea, accidents that sometimes occur on account of more or less partial paralysis of the muscles of deglutition. In the first stage of paresis, as already stated, the progress of the disease may be retarded or the disease arrested in its course. One case of fourteen years'

duration now under my care illustrates this. For twelve years his disease did not progress, and, during that time, the patient was interested in financial, political and educational matters. He is blind; and during the arrest of his disease and the period of active interest in affairs, a companion read aloud to him six hours every day. A congestive attack occurred later; and degeneration and dementia slowly followed.

In the treatment of paresis, each patient should be carefully individualized. Heroic measures should be avoided, such as bleeding, the use of mercurials, and depletion by hydrotherapy. The treatment of the depressed type is similar to that of neurasthenia.

In the exalted state, remedies indicated in mania are sometimes of use. Among the remedies most frequently used are *nux vomica*, phosphorus, *veratrum viride*, *belladonna*, *conium*, *platina*, *anacardium*, *ignatia*, arsenic, hypophosphites and iodide of potassium.

THE TREATMENT OF LARYNGEAL DIPHTHERIA.

BY C. SIGMUND RAUE, M.D., PHILADELPHIA.

(Read before the Philadelphia County Homœopathic Medical Society.)

In bringing before this society so old and well understood a subject as membranous croup, I do not feel it necessary to begin with apologetic remarks, as you must all agree with me, that while this is one of the most important and trying conditions that confronts us, still it is one we do not often discuss.

My chief aim, therefore, is to bring out as free a discussion as possible.

Do not let us be deceived by the belief that since the advent of antitoxin we need no longer consider such an emergency as suffocation occurring in our croup cases; and let us also remember that every now and then a case of membranous croup runs its course unrecognized, or untreated with antitoxin, until an alarming degree of laryngeal stenosis has set in.

As to the ætiology of membranous croup, I believe there are very few physicians at the present day who look upon it as a distinct disease and not as primary laryngeal diphtheria.

While not intending to trespass beyond the boundary of the title of this paper, I must say that I still believe, as stated in a previous paper upon this subject, that the bacillus starting up the laryngeal inflammation is less virulent than the ordinary type of diphtheria bacillus, and therefore finds the mucous membrane of the pharynx, which is rich in bloodvessels and lymphatics, an unfavorable field for its growth. The larynx, on the other hand, not so richly endowed with these structures, finds itself yielding to the invasion of the bacillus, with the consequent formation of membrane. As a rule, a few patches of membrane are seen upon the tonsils, but the faucial condition is, in the main, catarrhal. Constitutional symptoms are not as pronounced as in faucial diphtheria, on account of less absorption of toxin; and, according to the above theory, the attenuated state of the bacillus.

A word as to diagnosis may not be out of order: A typical case, beginning with gradually increasing hoarseness; croupy cough, with choking attacks and expectoration of stringy mucous, not relieving the hoarseness; gradually increasing dyspnoea persisting during the day; gradual loss of voice, and then, to make the picture complete, swollen tonsils, covered with a few patches of membrane, cannot but be properly diagnosed.

The differentiation from ordinary catarrhal croup is not difficult, and I need not recite it.

There are, however, cases which present difficulties. A severe catarrhal laryngitis may have every symptom of true croup, excepting the presence of membrane. Such cases are not common, but we encounter them every now and then.

They have associated a catarrhal inflammation of the entire upper respiratory tract. In other words, there is also a pronounced acute rhinopharyngitis; the throat is red and the tonsils may be swollen, but there is no membrane. Constitutional symptoms are more pronounced, the fever usually running high. Dyspnoea may be so persistent that mechanical interference for its relief becomes necessary, and a fatal termination may be the result, the true nature of the case being first determined at the autopsy. In such cases we must depend for our diagnosis upon, firstly, a laryngoscopic examination, and, secondly, a bacteriological examination.

I believe that the more experience one gains, dealing with croup and kindred conditions, the less one is willing to rely upon clinical symptoms in differential diagnosis, and more willing to leave the decision to thorough physical examination and bacteriological investigation.

In an infant under 2 years of age laryngoscopy is quite difficult. Kirschstein's method is an advantage here, and by means of his tongue-depressor we can get a view of the epiglottis and arytenoids, and often the false cords. In older children it is more satisfactory to use the laryngoscopic mirror, either grasping the tongue with a napkin, held in the left hand, or depressing its base well downward and forward, in order to lift up the epiglottis, with Kirschstein's instrument. A quick glance at the larynx is all that is necessary, as we do not have to study the vocal chords, but merely determine the presence or absence of croupous exudate.

As soon as we have determined that the case is diphtheritic it becomes our duty to administer *antitoxin*. This must be given in sufficient dosage to control the pathological process as quickly as possible. To my mind there is nothing more cruel than to permit this dread disease to gain hour by hour and slowly strangle out the life of a helpless child, waiting for the action of a remedy or wavering on the diagnosis. The half-hearted use of antitoxin does not bring better results. I am not decrying the efficacy of other remedies in croup. I know that cases have been saved; cases have gotten well; but where are the statistics of any other treatment that can stand even knee-high compared with the wonderful showing of antitoxin in membranous croup?

Let us use antitoxin early. There is no necessity of my impressing this fact upon you. If we have erred and our case proves to be non-diphtheritic, we have erred on the safe side. The child has suffered the pain of the injection, and possibly an urticaria later; but beyond that I believe we have done no harm.

I am a believer in large doses of antitoxin in these cases. Anyone who has had the pleasure of conversing with McCullom, of the Boston City Hospital, and hearing his expression and sound views on the subject, must feel that there is only one way of giving antitoxin, and that is in sufficient dosage to neutralize

all the toxin in the system. There is, perhaps, no one in this country who has had more experience with diphtheria than McCullom, and who has had better results in his treatment; and this, no doubt, is due to the fearless manner in which he administers it.

In laryngeal diphtheria it is not the neutralization of the toxin, as much as the prompt inhibition of the development of the bacillus and the casting off of the membrane, that is aimed at. To attain this result requires a relatively large dose. The initial dose in an infant under one year of age should be 2000 units. From two to four years 3000 units; four years and over, 4000 units. Should the case grow worse in spite of the injection, repeat in six hours; should it remain stationary or only show temporary improvement, repeat in twelve hours. A third dose is usually unnecessary, unless we have begun too late, or not used a sufficiently large initial dose. The cough and suffocative attacks are greatly benefited by *spongia*. If there is fever it may be given in conjunction with *aconite*. *Hepar* is useful later to clear the larynx and hasten resolution. Its characteristic indication of hoarse, croupy cough, with rattling of loose mucus in the larynx, the expectoration of which does not relieve the hoarseness and obstruction, besides its pathological relation to croupous exudations, makes it a most valuable remedy. *Kali bichromicum* is indicated when the expectoration is abundant and tenacious.

Steam inhalations are a necessity; it is needless to say that the air must be kept absolutely pure, warm and moist. Oxygen inhalations I consider a most valuable adjuvant.

When dyspnea becomes prominent, its relief must be sought for in either intubation or tracheotomy. What shall be the operation of choice is a question that cannot be decided in an off-handed manner. Since the advent of antitoxin neither operation is called for as often as it was formerly, but, unfortunately, we cannot yet dispense with them entirely.

Intubation has many apparent advantages over tracheotomy; it is a bloodless operation, and that now these cases recover much more rapidly than was formerly the case, the bad effects of wearing the tube too long have been eliminated. The results are uniformly good when intubation is resorted too early, but when the case has been allowed to go on until the mem-

brane extends down into the trachea, or is in a condition to become loosened on the introduction of the tube, the operation is not only useless, but positively dangerous. Even when we promptly follow with tracheotomy the results are not good.

Intubation must also be skilfully performed or much injury may be done to the larynx. O'Dwyer, himself, advised those not specially skilled in this direction to resort to tracheotomy. Eminent surgeons express the view that it requires more practice to master intubation than to perform tracheotomy, and anyone with much practice among children, who has been forced into this work, must agree with that statement. In young children, however, tracheotomy is quite a delicate operation, and in such subjects intubation is more applicable and not as difficult to perform as in other children.

The strongest advocate of intubation are all men whose work has been in hospitals, where, first of all, the highest skill can be attained through constant practice, and, secondly, where any emergency that may arise can at once be met; here intubation offers all that is claimed for it. In general practice, however, we dread the tube being coughed up, and the child suffocating before the physician can get back to replace it. We also dread seeing the dyspnœa become aggravated or respiration completely arrested after the tube is in the larynx, under which circumstances we are forced to rapidly open the trachea.

I have made it a rule to follow Wharton's advice and never do an intubation without being prepared for tracheotomy. Judging from my own limited experience I feel that we can gain little by intubating cases seen late. I have seen two such cases recently, and in both I had to open the trachea without much loss of time after an unsuccessful intubation. When, however, the conditions favorable for intubation exist, it should always be the operation of choice, it being on all counts a great step in advance over tracheotomy and a noble monument to that painstaking, conscientious physician, O'Dwyer.

STAPHISAGRIA IN TREATMENT OF MEIBOMIAN CYSTS.—Dr. David A. Strickler, in *Progress*, remarks that staphisagria is the only remedy in which he has any faith in the treatment of a chalazion or a meibomian cyst. He has seen several of these disappear while the patient was taking this remedy. It may be tried when the patient declines the trifling necessary operation. He also believes that this remedy has a definite prophylactic power.

CONDITIONS OF THE NOSE WHICH INFLUENCE THE CHRONICITY OF
OCULAR AFFECTIONS.

BY J. IVIMEY DOWLING, M.D., O. ET A. CHIR., ALBANY, NEW YORK.

(Read before the New York State Homœopathic Medical Society, February, 1904.)

THE purpose of this paper is to present clinical records in evidence that pathological conditions of the nose and pharyngeal vault are oftentimes the actual predisposing causes of symptoms referred to the eyes as the cause, and also of divers affections inherent to the eyes and evidenced as superficial or deep inflammations.

It is well to bear in mind that the eyes and nose are intimately related through contiguity, and likewise by means of arterial and venous anastomoses, and that the nerve-supply of each originates largely in the fifth nerve, and complemented with a controlling sympathetic nerve influence; and, finally, that communication exists through the lymphatics.

Authorities recognize the influence that diseases of the nose bear to affections of the eyes, but ascribe the fact to different causes, some considering nervous reflexes as the agency of first importance, while others credit the vascular communication as the positive controlling force. All agree as to the effect resulting from their proximity and the actual continuity of tissue by means of the lachrymal canals.

Although the actual path of communication, through which abnormal states of the nose or pharyngeal vault may influence affections of the eyes, is disputed, there is no controversy as to the truth of the actual subject under consideration, and it is safe to state that many chronic eye diseases may be permanently cured only after any complicating abnormal state of the nose or pharyngeal vault has been corrected.

The correction of refractive errors frequently effects a cure of persistent headache, vertigo, indigestion, and other symptoms which had previously resisted selected treatment, and in other cases appropriate care for correcting imbalance of the eye muscles relieves such symptoms as diplopia, car-sickness,

and the so-called "brain-fag." Such results and even more are secured by relieving the eyes of undue strain, for which the oculist is consulted after other treatments have proven unsuccessful, and in a majority of instances discovers the true cause and establishes a cure. However, on the other hand, the oculist sometimes fails even when the eyes present presumptive evidence sufficient to establish the cause of asthenopias and likewise some inflammations of the eyes intractable to remedial measures usually successful in the treatment of apparently similar conditions; and it is in just such cases that the nose or pharyngeal vault should be considered as the probable cause for the failure, and examination of those parts should be instituted, and if any abnormal state is revealed it is essential to remedy the condition in order that a cure of the ocular lesion may be attained.

Clinical results serve to illustrate most positively the truth of the assertion, that abnormal conditions of the nose and pharyngeal vault tend to aggravate and render chronic symptoms generally referred to the eyes as the cause, and likewise some diseases of the eyes.

The appended cases are suggestive because of the positive successes shortly following treatment of the nose and pharyngeal vault after seemingly appropriate treatment had failed to relieve, symptoms referable to the eyes as the cause, or in which actual ocular inflammations existed.

Mr. C. M. had suffered for years from asthenopia and associated catarrhal conjunctivitis. Glasses had been employed and local treatment instituted at various periods, but without satisfactory result. This patient consulted me in August, 1900, and in addition to the condition already mentioned I discovered an advanced atrophic rhinitis with associated dry pharyngitis. I continued the local treatment of the eyes and prescribed glasses for the correction of a low degree of hyperopia, and in addition resorted to radical measures for the relief of the complicating nasal and pharyngeal affection. After a few weeks the heretofore offensive and progressive atrophic rhino-pharyngitis was considerably improved with coincident amelioration of the catarrhal conjunctivitis and asthenopic symptoms, and at the end of fourteen months all the eye symptoms were cured and glasses discontinued entirely, as they were then no longer

serviceable nor necessary at any time. The condition of the nose and pharynx was finally cured, and since then the patient has suffered no inconvenience with symptoms such as had formerly been attributed to the eyes for the cause, but persisted in spite of efforts usually successful in relieving similar manifestations of disease. Ultimate cure of the entire train of symptoms was finally established, but only after the disease of the naso-pharynx was controlled. The success subsequent to added treatment of the nose and pharynx warrants the conclusion that the positive cause of all the symptoms was the affection of the naso-pharynx.

Another case in which the asthenopic symptoms were severe is that of Mr. L. T., who gave a history of accommodative asthenopia, complicated with right-sided frontal headache of such a painful nature that the patient stated that death was to be preferred. General nervousness and impaired ability to concentrate the attention upon the duties of the hour was the natural sequence. Various oculists had prescribed glasses without avail, and specialists in nervous disorders could suggest no cause nor afford relief. During May of the present year* this gentleman consulted me at a time when all symptoms were aggravated. Examination of the eyes revealed but a mild, simple hyperopic astigmatism with axes vertical. The extraocular muscles were well balanced, and the ophthalmoscope showed no evidence of intraocular irritation. In consideration of the ever constant negative results of former treatments, I suspected the nose to be the true cause, although the patient had never appreciated discomfort with that part. However, my search revealed a pronounced septal deflection directed toward the right, and within the right nostril a good-sized spur which had sprung from the line of fracture, produced by a blow upon the nose many years before and since forgotten until my examination disclosed the existing condition. The spur was most marked anteriorly, and through pressure had destroyed the anterior third of the inferior turbinated body. The rhinologist will readily recognize the possibilities resulting from such a condition, and in this case the actual cause of the long-existing symptoms was made known, and a cure of the hitherto

* 1903.

intractable asthenopia and right-sided frontal pains obtained by means of the accepted surgical correction of the intranasal lesions, and the positive success is such that the use of glasses is seldom necessary.

The nose may be a positive cause of asthenopias and headaches apparently originating in the visual organs, and even to a greater degree it sometimes serves to establish the chronicity of actual inflammations, inherent to the several parts of the eyes, such as phlyctenular conjunctivitis and corneal ulcers, which are most frequently observed in children with some inherent dyscrasia. These affections oftentimes damn our art and discredit our science as oculists because of their chronicity, and even when their activity is stayed for the lasting damage bequeathed the patient, which serves as monuments reared in evidence of the finite power possessed by the most painstaking and skilful of physicians. One reason for failure in the treatment of this class of diseases is the frequent impaired systemic vitality incident to faulty respiration, occasioned by some nasal obstruction or adenoid growths. These correlated predisposing causes are so often present in children affected with chronic eye diseases as to emphasize the necessity of proper treatment for their relief, in order that the coincident local treatment of the ocular affection may best serve its purpose, for by such means the chronicity is lessened and the likelihood of permanent damage to the eyes averted.

Appropriate treatment for such cases requires the removal of adenoid vegetations and correction of intranasal obstruction, in addition to the care of the eyes essential to any given affection. For the purpose of illustration, two cases are of interest:

Emily D., 8 years of age, consulted me in April, 1902, for treatment of multiple corneal ulcers which had resisted the usual measures for several months. In addition to the local condition I found a small mass of adenoids in the pharyngeal vault, and learned that the child was a mouth-breather at times, and also readily caught cold. Operation for the removal of the adenoids was advised immediately, but refused by the parents, so I continued local treatment, with the additional prescription of indicated remedies, over a period of six months; but while some improvement obtained, there still remained an uncon-

trolled tendency to recurrence, and so at that time the parents consented to the operation previously advised. Under general anæsthesia the adenoids were removed on October 7, 1902, with prompt benefit, for within one week the photophobia was controlled and healing of the corneal ulcers under way, and at the end of four weeks the eyes were cured, and since there has been no recurrence.

Early in April of the present year,* Alice R., aged 7, sought treatment for phlyctenular conjunctivitis and blepharitis of both eyes, suppuration of the left tympanum and purulent rhinitis. These complex affections had been under treatment for two years, during which time there had been occasional relief, but never entire freedom from the symptoms. The child was a typical picture of existing adenoids, and so immediate operation was urged, and performed on April 21st, under general anæsthesia. Three days later the right eye was free of inflammation, except the blepharitis, which was less; the left eye was less injected and the phlyctenules diminished, and likewise there was a marked change for the better in the blepharitis, and with the improvement noted the photophobia was less severe. In addition to the general modification of the eye symptoms, the purulent rhinitis was controlled, and also the middle-ear disease less in evidence. On May 8th there remained slight lachrymation and moderate photophobia, and a trifling crusting of the lids, but otherwise the eyes showed no trace of the hitherto uncontrolled lesions, and one week later even these symptoms were relieved. Since then the eyes have given no trouble. The middle-ear condition is quiescent, but the organ irreparably damaged, and will be subject to future acute exacerbations; but when those occasions arise treatment will more readily control whatever state is then present, because the adenoids are no longer a factor capable of establishing chronicity of either the aural affection or those inherent to the eyes.

Symptoms are the expressions of disease by means of which it is possible to ascertain the actual cause of an affection, establish the correct method of treatment and predict the probable outcome. Failures often result because objective signs have been neglected, and in the cases cited such was the reason for

* 1903.

the negative results attained. Objective evidence proved the *open sesame* to cure, and such symptoms are the most reliable guides to diagnosis, prognosis and treatment.

THE NEURONE: ITS FUNCTIONS AND ITS NUTRITION.

BY JOHN J. TULLER, M.D., PHILADELPHIA.

(Read before the William B. Van Lennep Clinical Club.)

THE object of this paper is not to go into a bewildering detail in the explanation of the entire neurone concept, but simply to give a sufficient discussion to render a distinct and, as nearly as possible, a complete idea of the neurone in general, and its function, for the purpose of practical demonstration and reasoning. When, in 1891, Waldeyer so ably compiled and critically reviewed the literature on the neurone to that date, sifting out that which was untenable and presenting to the world at large that which could be practically used, he set into operation a perfect furore on the part of the neurological investigators.

For the purpose of developing a more perfect and more minute knowledge of this central nervous-system cell-life, I would have it understood that the neurone occupies all nerve tissue; I would have it also understood that the neurone in its entirety comprises not only the cell, but all its appendages; and that when we speak of the neurone we speak not of the cell, or of any part of its communication, but of its entire outline.

In the last few years there have been very many theories put forth that have been born of the compilation of Waldeyer. Some of them have been compelled to fall; and some have fairly well withstood the investigations of time; that these minute cell bodies have the entire control and the regulation of the whole system, its functions and its nutrition; that they create within themselves a force not yet demonstrable, but one that has been seriously investigated since the time of the birth of the neurone theory, which we must still confess is an enigma to us.

Now, in taking up this question, I propose simply to select a type of the cell and describe it, that we may understand the peculiar characteristics of the individual cell. I will therefore select as a type the cortical pyramidal cell. In the first place, we find the cortex of the brain upon its immediate surface covered with an area of neuroglial cells, which are undoubtedly for the protection of the more important cellular substructure, as well as being a sustentacular cell. The cortical pyramidal cell, as we find it described under the microscope after the Golgi method of impregnation, shows us an object, as the name implies, more or less pyramidal in form, with certain prolongations passing out from it. These prolongations were earlier described as protoplasmic prolongations only; to-day they are known to be actual definite structural portions of the cell, and they carry their own individual name describing their own individual function.

The first class of them we describe as axones; the second class as dendrones. The first is that process which transmits the efferent impulse; the second, being multiple, are the processes which transmit the afferent impulses. They are again called dendrites. All of these structures are the component parts of the cell in its gross outline. Of the former we have but one, for it requires but one prolongation to carry an impulse away from the cell; and in the very nature of the arrangement of the second, the dendrones, we begin to reason out their function. We see that they start away from the parent cell, projecting in many prolongations from the body of the cell, having many collateral branches, and each of these collateral branches dividing at its termination into a mass of fibrillæ, while the axone, single in number, passes out generally as a single shaft from the cell body, having but one fibrillary termination, and that of small proportions as compared with those of the dendrones. We find occasionally that the axone has collateral ramifications; and it is believed to-day that the collateral ramification of the axone has an inhibitory action, antagonizing a too great force on the part of the other cell structures. Let it be remembered that these minute fibres, microscopic in fact, at times have a length of over three feet, passing from the cortical surface of the brain clear into the lower end of the spinal cord, while others of them have extremely short ramifications,

for the purpose of connecting with cells or their prolongations directly in their environment.

A point that I want well marked is this—that upon the afferent prolongation of the dendrite we find certain substances which appear to be excrescences; they are found, however, to be almost invariably present upon the dendrite. They are not excrescences, but a portion of the fibre itself. They are called gemmules; and these are extremely important on account of the degenerative changes that take place in diseased conditions destroying these gemmules. Again, under certain circumstances, we find certain varicosities along the course of the dendrones; and these must be taken carefully into consideration, because it is believed that the presence of these varicosities changes the retractive power of the fibre.

And here let me say that each and every neurone is an individual, distinctly separate, and communicating only by contact with its fellow, according to recent theories which have been put forth and which clinically we have strong evidence to support. And while our system of impregnation of these cells will not bring them out complete and display perfectly this picture, yet our experiments and clinical experiences go to prove the fact that time alone is necessary to demonstrate this.

In regard to the retraction theory of the termination of the neurone, let me explain a moment what it means: that these cells rest in their bed in the cortical surface of the brain, for example, their terminations in close proximity to each other, but not in contact; that when the stimulation of an impulse enters the cell, sent out over its axone, it is immediately carried by almost numberless dendrones which instantly reach forth, coming directly in contact with the fibrillary termination of the axone, thereby sending this nerve impulse into every direction that its function calls for. This is the one point that of late has entered into every strong discussion, for the simple reason that unbiased investigators have not been able absolutely to prove it. For example, in a very able article in volume 3, number 3, of the *Archives of Neurology and Psychopathology*, a work formerly published under the auspices of the Pathological Institute of the New York State Hospitals, but which now, unfortunately, has ceased of publication, Weil and Frank, after an exhaustive set of experiments which they ably and accurately

describe, show that from the unbiased standpoint of investigation they are unable to demonstrate the motility of either the cell or its prolongation. On the contrary, Pergens, of Brussels, was able to describe, after taking two lots of fish, one prepared in the dark for forty-eight hours, and the other for the same length of time in the light, a distinct separation between the protoplasmic prolongations of the cells of those prepared in the dark, while he was not able to perfectly describe this same condition in those prepared in the light. However, clinically, we make reference again to volume 3, number 3, of the *Archives of Neurology and Psychopathology*, to an able article written by William A. White, M.D., in which he shows clinically in his study of the insane that beyond the shadow of a doubt there is decidedly a condition of motility to the neurone. We are readily able to reason by the hysterical paralyses that we frequently see, in which consciousness is perfectly preserved, in which there is absolutely normal separation of the cellular communication of the intellectual portion of the brain, and yet we find that there is a loss of intellectual control over the motor areas, which can be accounted for in no other way except by the theory of the motility of the neurone resulting in a complete paralysis of non-organic origin of one member of the body.

We desire to go a little further into the arrangement of these cells. Meynert, I believe, has estimated the number of neurones upon the cortical surface of the brain as twelve hundred millions. When we realize that this vast number of cells on the surface of the brain is intended to govern the mental functions, the motor functions, the sensory functions, as well as to have an intimate relationship with the sympathetic nervous-system, we must understand from this that they must be placed in certain groups, or certain centres, and that it remains for us to locate these centres in order to complete the system of localization of the functions of the brain. We therefore come to the conclusion that these cells are arranged in communities, and that each individual community has connection with every other community in the brain. We have demonstrated this fact in the motor areas of the brain, and in part of the sensory areas; it remains yet for us to localize the mental processes of the brain in the same way. It has been argued by many able

authorities that the intellectual portions of the brain rest only in the anterior lobe of the left hemisphere; others have argued that the seat of intellectuality is distributed through all the centres of the brain; but the vast majority of investigators hold to the belief that the intellectual portion of the brain rests in both anterior lobes, yet holding close communication and intimate relationship with all other structural portions of the brain.

We find, although we have been able to define perfectly the centres of voluntary motion in the area of Rolando, that there is a certain set of centres lying in the basal ganglia which can be, and have been, demonstrated as the non-volitional motor centres—the centres acted upon when unconscious convulsive movements occur. It was demonstrated by Obersteiner that in protracted idiopathic epilepsy a condition of sclerosis of the hippocampi existed; and, while there is undoubtedly a distinct and direct communication between these centres and the anterior lobes, there must of necessity be a distinct communication as well with the cortical motor area, which is the voluntary area. We can readily reason from this standpoint how the perfect and harmonious relationship between the intellectual centres arising in the anterior lobes of the brain produces a condition of perfect sanity. We can then readily realize as well how under the action of degenerative changes a separation, or rather an inharmonious communication between these prolongations, not only individually, but in groups, produces the condition known as mania.

For example, Berkeley, in 1896, fed rabbits on alcohol during a period of three weeks in the proper proportion that would render a man weighing 150 lbs. 1500 cubic centimetres a day. He found "in the nerve-cells of the cortex the Nissl method showed in somewhat indefinite detail, beginning chromotolysis of the protoplasm, and minor alterations in the nuclei of the cells; but by the silver-phospho-molibdate method definite lesions of the dendrites can be demonstrated at a point beyond that at which they can be rendered visible when the aniline colors were used. These morbid changes consisted of varicose swellings of the branches and subsequent atrophy with loss of the gemmulæ. The bodies of the cells showed few indications of disease, and the axones and collaterals none. Accordingly, the damage to the nerve-cell may be regarded as being of a

reparable nature." This goes to prove to us that it is possible for us to have degenerative changes going on to almost an unlimited extent in the case of chronic alcoholism; that it is possible for neurones to be degenerated in such a way as to produce the most varied and violent forms of mania, and yet it is possible for these cells to undergo a certain degree of repair. This accounts again for the degree of nerve tremor that exists in a chronic alcoholic; for the gradual and progressive loss of memory, and the gradual and systematic undermining of the mental capacity of the chronic alcoholic.

We can readily see, then, how the natural functions of these cells acting harmoniously produce a normal mental activity that brings forth from certain minds the solutions of such gigantic problems, and we must realize from this that these centres exist in groups, and the combination of these groups form communities, and that each and every individual community is in close relationship with the other; else it would be utterly impossible to form consecutive and practical thought. These communities are the centres of thought, and the time must come, through the study of the pathological processes of the human brain in the light of the present day and future developments, when we will be able absolutely to localize the communities of the different lines of thought. Then will come the understanding, through the neurone, of the physical mechanism of thought,—and it is not very far distant.

Now, let us turn our attention for a moment to the internal portion of the cell. We find the cell made up of certain structures that cannot be classified by their functions; therefore, we must turn to the simplest means of classification, and Nissl used color for his classification. In other words, he has employed the methylene-blue stain, and has named the substances according to their manner of taking the stain. We find then, first, the description of a chromatic and an achromatic substance. By this we mean the substance that takes the stain and a substance that does not take the stain. Barker has arranged a table which describes very nicely the different characters of cells according to their arrangement by the Nissl method of staining which we quote from in part.

Of the First Group: The somatochrome nerve-cells:

Cells in which the cytoplasm surrounds the nucleus completely and exhibits a distinct contour. Of this group:

- (a) Arkyochrome nerve-cells: the stainable substance in the cytoplasm appears to be arranged in the form of a network, and of these he gives again three types:
 1. The type of anarkyochrome nerve-cells.
 2. The type of ampharkyochrome nerve-cells.
 3. The type of arkyochrome nerve-cells.
- (b) Stichochrome nerve-cells: the stainable substance in the cytoplasm is arranged in the form of stripes running in a similar direction. Of these he gives four types:
 1. Type of motor nerve-cells.
 2. Type of large stichochrome nerve-cells of Ammon's horn.
 3. Type of stichochrome nerve-cells seen in the cerebellar cortex.
 4. Type of nerve-cells seen in the spinal ganglia, etc.
- (c) Arkyostichochrome nerve-cells: of these, up to the present, only one type has been distinguished. These could not be classed by Nissl among the arkyochrome cells:
 1. Type of purkinje cells in the cerebellar cortex.
- (d) The gryochrome nerve-cells.

Second Group: All nerve-cells not belonging in the first group.

- (a) Cytochrome nerve-cells: only traces of the cell body are present. The nucleus is of the size of the nuclei of the ordinary leucocytes, and of these he gives:

Cytochrome cells of two types, A and B.
- (b) Caryochrome nerve-cells: only traces of the cell body are present. The nucleus is of the size of the ordinary nerve-cell nuclei, and is in every case larger than the nuclei of the glia cells.

Of these he gives two types, A and B.

We must consider and understand that these cells are generally distributed through all the nerve structures of the body, and they take a form of internal contents according, undoubt-

edly, to their function. I must again say that the actual mechanism, according to the researches of all the present investigators, of thought or of cell action, is not yet understood; and here we are compelled to put forth our hands and request the organic chemist to step in with us. It is a peculiar condition of things if this varied form of reticulum existing within the cell structure itself, passing through the prolongations known as the dendrites and seen at the point where the axone disappears from the cell, I say it is a peculiar condition of things if this special arrangement of fibres in their varied forms, has not an important bearing upon the functions of these cells.

Nansen has found sufficient evidence to prove to himself that this fibrillar network existing within the cells is a system of hollow tubes—primitive tubules. The late work of Sajous on the *Adrenal Bodies or Suprarenal Capsules and the Pituitary Body* describes the fact that the leucocyte holds within itself a mesh of fibrous structure, as disclosed by his wonderful compilation of the important researches of the present day, which is nothing more or less than a system of hollow tubes, and which performs an extremely important function in conveying the nutrition from the outer portion of the cell body not only into the cell structure itself, but into the nucleus. We have reason to believe that Nansen's theory that the fibrillar network of the neurone which he describes as a primitive tubule is true; for nature does not create laws that vary for every little point: as she would nourish one cell, she would nourish another.

Again, in regard to the contents of the cell, we find that every cell holds within itself a nucleus, and within the nucleus we can describe a nucleolus; and again within the nucleolus an increased magnification discloses the presence of the nucleolus—three bodies regularly arranged within each other, and all within the parent cell. If the contents of the cell itself takes a certain definite form we must appreciate the fact that the nucleus must take a corresponding definite form of the same character, and as the nucleus, the nucleolus, and as all the others, the nucleolus. If, then, this fibrous network existing within the cell is a system of hollow tubes conveying nutrition into the cell, and conveying away from the centre of the cell the excrement of that cell, then we must realize that this same system exists not only in the parent cell itself, but in all

the rest. And, further, let us say, that because we have not the means of raising the microscopic power for further investigation, this is no reason for believing that there is not a further divisibility of these cells; and as each and every cell must bear harmonious relationship one with the other, so must there be harmonious relationship between the contents of the mother cell and the nucleus; and not only between the mother cell and the nucleus, but the same harmonious relationship must exist between each individual division of the cell. And again, not only must this relationship exist between the parent cell and the structures within it, but there must be a harmonious relationship established between the cell and its nuclei and the nutrient fluid that passes into it, else the nutrition cannot pass through these tubules—canaliculi, as Sajous calls them—to perform the nutrient function of the cell. When we realize that the simple disturbance, for an instant, of the harmonious relationship between these parts, such, for instance, as the dislocation of the nucleus, as the retention of a small amount of pigment within the cell, produces diseased conditions, and when we realize the minuteness of these structures, it opens a vast field of study for the efficiency of a homœopathic remedy. When we come to realize the fact that perhaps the specific relationship, interrupted for the moment, between the nutrient fluid passing the cell and the contents of the cell, makes the cell retain its excrementitious matter and checks the normal nutrition of the cell, we then realize how it is possible for a homœopathic remedy to correct this relationship between the nutrient fluid and the cell contents and permit the normal function to be again established. I really believe that the time will come, if the facts revealed are proved true, when the recently compiled work of Sajous on the ductless glands will create as profound an impression on the profession in general as did the work of Waldeyer on the neurological investigators. Without going into any discussion of the theories put forth by Sajous, I would like to refer simply to the existence of the substance which he calls adrenoxin, and on which he claims the regulation of all nutrition, through its power to convey oxygen to the structural portion of the cell, depends. When this is proved beyond the shadow of a doubt to be true, it still remains a most powerful adjunct to homœopathy; if, as he claims, the exhibition of

mercury in the second stage of syphilis acts as a curative agent only in assisting in the regulation of the fluid he calls adrenoxin, there is probably not in all homœopathy a picture which more practically and more completely demonstrates the truth of the law, than the exact similarity between the provings of mercury and the secondary symptoms of syphilis; and if his theory under these circumstances holds true and proves to be true, then he has solved the question of the action of a homœopathic remedy.

In closing this article, I want to again say to you that it has not been my object to put forth new facts, but simply to set forth a series of facts that will give you an understanding of the neurone of the present day.

REMEDIES THAT WILL ABORT SUPPURATIVE TONSILLITIS.—In the *Chironian* is published a short paper by Dr. M. W. Van Denburg, dealing with the three remedies which have really shown, in the experience of the narrator, an abortive influence upon parenchymatous or suppurative tonsillitis. The *Chironian* is a college journal that might serve as an admirable example of how interesting and useful the small college publications may become, if the efforts of the student body are backed up by the alumni of the institutions. Dr. Van Denburg gives three remedies: Gelsemium, baryta muriaticum and silica; and these three, he says, will actually abort the disease under consideration. He differentiates these remedies in the following manner:

Gelsemium.—Patient has an initial chill. Seldom has a severe shaking chill, but wishes to cover up and sit by the fire. With the chilliness there is severe frontal and general headache. Aching of the entire body and limbs—of the loins especially. More or less fever follows, pains are then increased, little thirst, large, soft slow pulse. Great prostration and disinclination to make any effort. A painful spot appears deep within the tonsil, which hurts out of all proportion on swallowing. The throat appears red and is inflamed. The pain streaks into the ear on swallowing. The progress of the disease is rapid. Gelsemium 2x is the remedy; and, if begun during the chilly stage, should abort the whole trouble in twenty-four hours.

Baryta carbonica or *baryta muriaticum*.—The chill is seldom present and the fever is only slight. The headache is moderate and the bodily discomforts are absent. The progress of the disease is slow, and the streaking pains into the ear when swallowing are severe, but not so severe as in gelsemium. The 3x should establish convalescence in twelve hours.

Silica.—When there is severe pricking as of a pin at one definite point within the tonsil. This different from the large, sore, exceedingly painful tonsil of gelsemium, or from the moderately, but persistently, sore tonsil of baryta. In each remedy the pain shoots to the ear when the patient swallows.

EDITORIAL.

FREE MEDICAL TREATMENT OF THE CLERGY.

For a long time, how long we do not know, it has been customary for physicians to give their services to clergymen and their families, sometimes to the second and third generations, gratuitously. The basis of such a custom it is not easy definitely to discover, but its propriety was not questioned until in late years. With the universal awakening in the medical world to the importance of a thorough diagnosis of all phenomena concerned in the profession, and of a careful study of their etiology, have arisen questions in regard to this particular phenomenon. Doubts as to the correctness of the traditional views of the necessity, or even propriety of this custom, are freely expressed, and it is denied on the part of most investigators that the possession of the title of *Rev.* before a name is in itself sufficient cause for a demand for gratuitous services. We say demand, for so firmly and universally has this been established that clergymen as a rule would be as much startled by the appearance of a doctor's bill for "professional services rendered," as they would be by documentary evidence of a schism in their church. We feel convinced, however, that, if the learning and mental acumen which characterizes their "higher criticism" of other documents were directed to this more nearly personal one, they would be compelled to acknowledge its authenticity and authority.

The idea that the gratuitous services of the physician are merely the expression of a professional courtesy from one professional brother to another can be dismissed as inapplicable, else would the lawyer be entitled to the same, in fee simple, and even the dentist could extract the same comfort from his professional standing. The term profession in recent years has been extended to cover so many occupations that an ap-

peal to professional courtesy would be too far reaching in its consequences. We can easily imagine how, in earlier times, when both the clerical and medical professions stood apart from the common people, raised on pedestals above them, they would avoid anything which might savor of commercialism, and how, therefore, they would exchange services, where practicable, without mentioning pay, or remuneration. But at the present day commercialism has invaded the ranks of both professions, and both are not slow to acknowledge that "they that serve the altar must live by the altar," and that "the laborer is worthy of his hire." Services must be paid for in some way or another, or they must be rendered as charity. There is no third alternative. The pay may not be in money, but may be in reciprocated services. In what way can the clergyman reciprocate? His general ministrations do not entitle him to demand free groceries, bread, and meat, even from members of his own congregation, and why should he have free medical advice from one who perhaps have never seen or heard him officiate?

The more particular functions of the clergyman, marriage, baptism and burial, are seldom rendered to a physician or to his family without anticipation of the customary honorarium, and, at any rate, such functions are of but occasional occurrence.

But the clergyman may pay for services rendered by promoting the interests of his physician, by speaking of him in season and, so far as possible, out of season, too, by recommending him to his parishoners and, in short, becoming, in common language, his "tooter," or a "barker" for him in public. That there exists in the mind of the physician some sort of expectation of this kind, there is no doubt: not expressed, but none the less understood. "Treating the minister and his family" (medically, of course,) is one of the forms of advertising which, like having a class in Sunday-School, teaching a Bible class, or being a vestryman, etc., is considered not only legitimate, but laudable. And so it is, for we would be far from ascribing purely selfish motives to such acts, but we think the motives are mixed, for in no other case is it so clearly seen that Virtue has its re-

ward, and in no other case do duty and profit meander so comfortably together. Granted that in this way the clergyman from his position and influence can render an equivalent, and perhaps feels himself bound to do so, is it a dignified proceeding for either party? To advise a change of medical attendants is a responsibility which some are very loth to assume, and when it is done with the consciousness that it is largely to get rid of a feeling of personal obligation, it must be distasteful to a conscientious clergyman.

This, we think, is really the feeling of many of the clergy, but there are, alas! many who have come to regard free medical services so much as one of the perquisites of their office that they are the most inconsiderate and exacting of patients.

Are clergymen, as clergymen, deserving objects of charity? When we read of the averages of salaries paid them, and when we hear of the minimum remuneration established by Conferences for "workers in the vineyard," we would be inclined to answer this question in the affirmative; but nothing is so deceptive as averages, and isolated instances of starvation salaries constitute no standard by which to judge of the ability of a class to pay their honest debts. There are no doubt many instances where the physician willingly recognizes his duty to assist by his gratuitous services in raising the large family which some poor minister, with an overweening confidence in the ability and willingness of Providence to provide, has planted around him. The physician does this, however, not because the recipient of his services is a clergyman, but because he is poorer than a day-laborer earning the same amount per annum, on account of the manner of life required of him, and the many calls upon his charity and hospitality. There are, no doubt, other names in the doctor's "free list," not "of the cloth," for sadly selfish is that man's heart whose free list is suspended, but let the reason of his acts be clearly recognized. Outside of these really deserving objects of charity, the clergy can hardly claim to be entitled to free service. Many who accept it, and even expect it, are in as good or even better circumstances than the physician who gives it. In such cases the offer of gratuitous treatment should be looked upon as an insult and its acceptance as a fraud.

The sum of the whole matter is, therefore, that there should

be no distinction of persons, for it is an injustice to all parties concerned. Physicians as a body should maintain the principle that their services are in all cases worth being paid for, and that no one is entitled to or may claim exemption by reason of his title or position, but that they themselves may be governed, in the charges made, by the circumstances in each individual case. This, far from being an evidence of a want of respect to the clergy, should be regarded as an endeavor to uphold the dignity of "the cloth," and will eventually meet with the approval of all conscientious and self-respecting clergymen.

THE PROPHYLAXIS OF PNEUMONIA.

"THE most widespread and fatal of all acute diseases, pneumonia, is now 'Captain of the Men of Death'" is the statement made by Osler. The number of deaths annually from tuberculosis has steadily decreased, while the number from pneumonia has steadily increased, until now the mortality from the latter disease exceeds even that of the "Great White Plague." It is a fact that, despite the advances made in the prevention and treatment of the infectious diseases as a class, pneumonia is more widespread than ever and its mortality percentage is as high as it was a century ago.

In Philadelphia the percentage increase in the death-rate from pneumonia between 1869 and 1902 is 83.33 per cent., and in Chicago, during the same period, 35 per cent. (Scott). In Boston the death-rates at the Massachusetts General and Boston city hospitals show a decided increase; in the former a gradual rise by decades since 1850 of from 25 to 34.4 per cent. Osler states there has been a marked increase of the disease in Baltimore, and that the admission of pneumonia cases to hospitals during the last few years has in some places almost doubled. E. F. Wells, after an analysis of 359,797 cases of croupous pneumonia, gathered from all over the world, and covering a period of nearly one hundred years, reaches the conclusion that "the proportion of deaths from pneumonia to the total deaths from all causes and to the population has steadily and markedly increased, while the death-rate remains unaltered, and the conclu-

sion is irresistible that the prevalence of this malady has notably increased during the period covered by the inquiry."

The season of the year has a marked influence on the development of pneumonia. The reports of the Montreal Hospital show that during the summer months the per cent. of cases admitted was between 3 and 4 per cent., during the cold winter months between 5 and 8 per cent., and during the spring months, when the snow was melting, between 14 and 17 per cent. The large statistics of Seitz, of Munich, and of Seibert, of New York, give the highest per cent. during February and March. These statistics indicate that cold combined with dampness is more favorable to the development of the disease than cold *per se*.

The constancy of the mortality percentage from pneumonia during the last hundred years is remarkable. Under the old heroic treatment, the stimulating, the antipyretic, the homœopathic, and the present expectant and symptomatic treatment, the mortality percentage has remained substantially the same. At the present day there is no known specific treatment for lobar pneumonia. Much can be done to lessen the toxæmia, to make the patient comfortable, and to support him during the crisis of the disease, but interference with the *vis medicatrix nature* by the indiscriminate use of drugs is to be condemned. The mortality percentage of pneumonia by decades from 1810-1900, under a great variety of treatments, is as follows :

Decades.	Mortality.
1810-1820,	11.5 per cent.
1820-1830,	19 " "
1830-1840,	20.8 " "
1840-1850,	16.2 " "
1850-1860,	19.1 " "
1860-1870,	20.3 " "
1870-1880,	18.5 " "
1880-1890,	19.4 " "
1890-1900,	19.6 " "

Of 486 cases treated in the Montreal Hospital during the last eight years the deaths numbered 104—21.2 per cent. The mortality at the Johns Hopkins Hospital is 25 per cent. in whites and 30 per cent. in negroes. Of 1225 cases treated during the last ten years at the Pennsylvania Hospital the death-rate was 20.4 per cent. Scott, in analysing the reports of

the Pennsylvania Hospital, states that the mortality percentage during the last five years has been identical with that of the previous five years, though the treatment has been greatly changed. Lawrence, in studying the reports of 100 cases at the Hahnemann Hospital of Philadelphia, found the mortality to be 25 per cent. At the same institution last year the mortality was 21.8 per cent. In the 359,797 cases collected by Wells the total mortality was 78,317—21.8 per cent. We thus see that in hospital practice the mortality percentage from croupous pneumonia varies normally from 15 to 30 per cent., a fair average being 21.8 per cent.

In view of the increasing prevalence of pneumonia and of our lack of effectual means to cope with it when once established, the question of prophylaxis becomes one of great importance. Prophylactic measures, broadly speaking, have two aims. First, to diminish the opportunities for meeting with the infective organisms; and, second, to increase the resisting power of the body to infection by these organisms. Both public and individual action is necessary to bring about such conditions.

From a public standpoint there are four important measures to be carried out:

1. The removal of snow from the streets. A study of the causes of pneumonia shows that coldness and dampness of the atmosphere, resulting from the presence of melting snow, is the strongest predisposing cause to pneumonia.

2. Proper drainage of the streets to prevent the accumulation of pools of water.

3. The maintenance of atmospheric purity by keeping the streets free from dirt and by preventing mills and factories from polluting the air by unnecessary smoke.

4. The enforcement of proper ventilation of street cars, theatres and other public places where large numbers of people assemble. The frequency with which pneumonia develops after sitting in the hot, vitiated atmosphere of a theatre, and then going out into the cold air of the street, is sufficient to emphasize the importance of proper ventilation.

As regards personal prophylaxis it is the duty of physicians to give specific instructions to their patients as to how they can best protect themselves from an attack of pneumonia. The

plan adopted by the New York Board of Health of having these directions printed on a slip of paper and distributing them to the public is to be commended. The most important protective measures to be carried out are as follows:

1. Destroy all sputum from a patient suffering with pneumonia. Many examples of the contagious character of certain epidemics of pneumonia are recorded, and as a matter of precaution the sputum should always be destroyed.

2. Do not neglect the treatment of an ordinary cough, especially after an attack of influenza.

3. Do not work or sleep in hot, poorly ventilated rooms.

4. Avoid, as far as possible, going suddenly from a hot room into the cold air. It is a good plan to stand a few minutes in the corridors of a theatre or public hall before going into the street.

5. Avoid being chilled when tired.

6. Wear light wool undergarments and avoid overbundling of the neck.

7. Keep the feet warm and dry.

8. Prevent portions of the lungs from becoming inactive by a few deep breathing exercises daily.

9. Keep the oral and nasal cavities clean.

10. Do not allow the resisting power of the body to become lowered by improper food or loss of sleep.

G. H. W.

THE DOCTOR'S TEAM AS A FINANCIAL BURDEN.

Does it pay for a physician to have a team? At first thought, this question would seem to have but one answer, namely, in the affirmative. But when one stops to consider just how much a team can be employed in visiting one's patients, the annual cost of its maintenance, and the twentieth century methods of public transit, he may well doubt if the ordinary medical or special practice requires the doctor to maintain a team for his professional use. Convenient it may be certainly; but that it is necessary is doubtful.

Let us be a little pedantic and make a display of figures. In the large cities, it is generally estimated that one horse, car-

riages and driver will cost the owner \$700 per annum. This includes stabling, shoeing, "tips," wages and feeding of driver, and repairs on harness and carriages. Two horses will run the expense up to \$1000 per annum. Next, let us see what work is done. We believe that we are safe in saying that ten miles per day for the year round is about the distance that will be covered by the team. This means that the doctor pays from nineteen to twenty-seven cents per mile for transportation, according as he keeps one or two horses. If one assumes that he has an average of 10 visits daily or 3600 yearly,—and this is a large practice,—each patient involves him in an expense of nineteen to twenty-seven cents. If he makes 4800 calls annually, the per capita expense is reduced, but then it will usually be found that three horses will be required to do the work.

A very large share of the general practitioner's work must be done for low fees, say one dollar per visit. What is a still more serious matter, a very large proportion of the patients fail to pay their bills. We have been told that from one-fourth to two-thirds of the people in many communities are "dead beats." Accepting the one-fourth as the general rule, this will add about one-half of the per capita ratio to be added to the cost of the team in visiting those who do pay.

It seems to us that the doctor should study his expenses and the demands of his practice in a business-like manner. Let him determine just what his team costs him per annum, including in the items the expense of renewal of plant. Let him determine also just what revenue in cash he obtains from the patients whom he visits. Let him determine just how much "deadism" receives the advantage of his team; and then let him ask himself if he gets rid of his "dead-heads," and confines his outdoor practice to paying patients, can he not do without his team and save the money he spends thereon?

It may be objected that the doctor needs a carriage for advertising purposes. We doubt it very much. We know that many physicians with large practices in cities do not drive; on very busy days they may hire a team. Our attention has been directed to this subject by noting the number of doctors who are giving up their teams and continue to show their former prosperity.

THE RESPONSIBILITY OF THE PROFESSION FOR THE NON-PAYING PATIENT.

DR. N. H. HOUGHTON, in February *New England Medical Gazette*, brings up again the oft discussed question of the abuse of medical charities by the laity. And Dr. Houghton has at his disposal much data that will go to prove that his position in the matter is well taken. The abuse of the various medical charities by the laity is deplorable, but not nearly so deplorable nor so reprehensible as the abuse of the various medical charities by the medical profession. Every physician and every specialist, connected with an institution doing charity work in a great city, knows perfectly well that the medical profession at large abuse the privileges of such institutions. But it requires a certain amount of courage for one to emphasize this side of the subject as Dr. Houghton has done. He mentions some disagreeable things that are true. He urges the profession at large to do everything in their power to discourage the rapidly increasing tendency to undeservedly obtain free medical treatment, and he urges the profession to be equally just to each other in this matter, and to try to be mutually helpful in furthering and in securing each other's professional welfare whenever opportunity offers. We like the tone of Dr. Houghton's paper, and we think that if his ideas were put into practical operation generally, the sentiment "fraternally yours," which we see so often, would be more appropriate. This matter has been so often discussed that it does not seem to sink very deeply into the minds of the profession.

BROMIDE OF SODIUM IN TINNITUS AURIUM.—The experience of Dr. J. Martine Kershaw leads him to believe that the bromide of sodium is one of the best medicinal agents known for the palliation and, sometimes, the cure of tinnitus aurium due to congestive conditions. It overcomes cerebral congestion, when the latter is active. Anæmic people can take the remedy for a short time only, but full-blooded patients respond promptly to the remedy. It must therefore be administered cautiously.—*Journal of O., O. and L.*

GLEANINGS.

DIFFERENTIAL DIAGNOSIS OF TYPHOID FEVER IN ITS EARLIEST STAGES.—(Rucker.)—The writer very nicely sums up his article in the following conclusions: (a) There is no single symptom on which alone a diagnosis of typhoid fever can be made. It is only by a careful consideration of the totality of symptoms can a clinical diagnosis be made. (b) The most trustworthy as well as the earliest sign of typhoid fever is the presence of the bacillus of Eberth in the circulating blood. (c) The demonstration of this bacillus is not beyond the workings of any well equipped laboratory. (d) The bacillus of Eberth is found also in the fæces, but at a later date than in the blood. This procedure being quite easy, and its evidence may be corroborative of other evidence at hand. (e) The presence of the bacillus typhosis in the rose spots is also a corroborative sign, but has no advantage over the other clinical examinations. (f) The serum reaction of evidence is seldom demonstrable during the earliest stages of typhoid fever. It is of value only in the higher dilutions.—*The American Journal of the Medical Sciences*, January, 1904.

William F. Baker, A.M., M.D.

TREATMENT OF PULMONARY TUBERCULOSIS BY FORMALDEHYDE.—(Mathieu.)—There are three ways of administering this remedy in pulmonary tuberculosis. The first is by inhalation, and the second by intravenous injection, and the third by electricity. The inhalation method of treating the disease is old, but using this remedy in an atomizer or vaporizer, and by nose and mouth inhalation, is quite new. The inhaler is flexible and light, made of perforated zinc, and fits the chin perfectly. The writer recommends a 40-per-cent. solution of formalin, one part of chloroform, two parts of rectified spirits, and a few drops of ammonia. The advantages of this method are, first, its simplicity, and the fact that the patient may use it indoors, outdoors and inhale no dust. He can readily use this medication himself. The inhaler must cover the nose and be continuously worn. The vaporizer consists of a spirit lamp with an open boiler, into the mouth of which is let a tray which carries paraform powder with a little menthol. The steam renders the action of the formaldehyde more penetrating and effective.

The writer has kept full records of 100 cases, and his conclusions are that these methods are an advantageous addition to the open-air treatment. The intravenous injection is begun by 50 c.c., of a strength 1 to 2000, increasing to 1 to 1000. The patient oftentimes complains of numbness of the hands, and there is a slight rise in fever. The objection, however, is that, owing to the non-vascular character of tuberculosis lesion, the remedy cannot reach the diseased tissues. If it can be shown that the formaldehyde has a general action on the septic condition, then must it be of some service.—*British Medical Journal*, October 24, 1903.

William F. Baker, A.M., M.D.

THE TREATMENT OF TUBAL PREGNANCY.—(Bröse.)—The removal of the tube can be avoided in many cases of early tubal pregnancy, a matter of importance if the tube on the opposite side is diseased. The treatment consists briefly in exposing the tube, expressing the ovum and ligating bleeding vessels. Bröse describes it as follows: The patient is prepared as for an abdominal cœliotomy, so that this operation can be undertaken immediately, if necessary. Vaginal cœliotomy is then performed in the usual manner posterior to the cervix, but not too close to it. A transverse incision is preferred to the median, as there is less danger of injuring the rectum. The uterus is not curetted before or after operation. It is unnecessary, as bleeding from the uterus will cease when the tubal pregnancy is removed. If bleeding in the peritoneal cavity has occurred, the semitransparent peritoneum will appear dark blue or black after dividing the loose connective tissue between the peritoneum and vagina. A stream of thick, dark blood often gushes out when the peritoneum is opened. Two fingers are then introduced into the peritoneal cavity and the contents of the pelvis are examined with the aid of the other hand on the hypogastrium. Adhesions are separated, if present, and the impregnated tube is drawn down into the vagina by the fingers and secured by a clamp. The tube is then carefully examined with the aid of a vaginal retractor. Sometimes the ovum is torn away by this manipulation, but if not it can be expressed from the fimbriated extremity of the tube by a stripping motion. A sharp curette and forceps are necessary occasionally to remove remnants of the ovum. Bleeding at the site of attachment is controlled in most cases by the above method. If expression is not successful, the tube can be incised over the swelling and its contents expressed or removed by the curette. Sutures can be used when necessary to ligate bleeding vessels. The incision in the tube should be closed by sutures in layers, first the muscle and next the peritoneum, as in suturing the uterus after Cæsarian section. If hæmorrhage is not arrested the tube still can be removed. After bleeding has ceased the tube is replaced and the peritoneal incision and vaginal incision closed separately. Drainage is rarely employed except in the presence of a perisalpingeal hæmatocele, and then an iodoform gauze wick is left and removed on the fourth day.

The entire operation requires only a few minutes. Convalescence is rapid and many cases leave the hospital in two weeks. Twenty-five cases are reported with uneventful convalescence. In two of them intrauterine pregnancy occurred soon after the operation.

The writer considers this method of operating a great step in advance and recommends the vaginal incision for exploratory purposes, which makes the diagnosis of an unruptured tubal pregnancy relatively easy. It is more difficult if the ovum has perished, as the retained product of conception is withered and somewhat hard, so that it is easily mistaken for a tumor of the adnexa, especially if there are signs of recent inflammation of the adnexa. The absence of blood in the abdominal cavity, the reddening of the peritoneum of the *cul-de-sac* of Douglas, the adhesions and fresh peritoneal exudate, indicate the presence of a recent inflammation of the tube. In two such cases the adnexa were not removed. Iodoform gauze-drainage was used and both patients recovered in a short time, and one of them became pregnant in normal manner. This operation is especially desirable if a hæmatocele is suppu-

rating, and is, therefore, recommended as at least an exploratory operation for all cases. It is not suited for cases of severe or progressive hæmorrhage, which should be treated through an abdominal incision.—*Monatsschrift für Geburtshilfe und Gynäkologie*, Bd. xvii., 1903.

George R. Southwick, M.D.

THE DISSEMINATION OF THE POISON OF ECLAMPSIA IN THE MOTHER AND IN THE FŒTUS.—Dienst regards eclampsia as consisting essentially in insufficient elimination on the part of the maternal excretory organs. This is caused either by a primary insufficient functional ability of the maternal kidneys or heart, or both combined. But when once an insufficient elimination exists, the poisonous excretory substances of the child are also retained in the maternal blood and accumulate there. These substances act injuriously as real blood poisons upon the entire maternal organism and, in the first instance, upon the already injured excretory organs. It thus happens that through chemical tissue changes a secondary toxic nephritis of pregnancy may arise from a simple kidney of pregnancy. The maternal liver also undergoes tissue changes from the foetal poisons. Therefore, the diseased maternal liver produces insufficiently oxidized substances for which the kidneys are not permeable. Hence, albuminous substances derived from the maternal organism must accumulate in relatively large quantities and become associated with the foetal matters in pathological quantities in the maternal blood. From longer continuance of the disease these materials pass through the maternal blood into the placenta, and from there into the foetal organism. Thus the foetus, although it is the source of the poison of eclampsia, becomes affected only secondarily, and its organs experience, also only secondarily, the tissue changes induced by the greatly poisonous properties of its substances. If this view be correct, we would expect, that after long lasting and severe eclampsia of the mother, the poisoning would be distinctly recognizable in the foetus, and that especially the excretory organs, *i.e.*, the liver and the kidneys, would be most intensely acted upon. But besides this we ought to be able to furnish the proof that the changes in the foetal excretory organs are of more recent date than the analogous changes in the mother.

In confirmation of this view, Dienst reports two cases, giving minute details. In one case the woman had four convulsions, during which the child died. Eleven convulsions followed her delivery and caused her death. Autopsy revealed the maternal heart to be hypertrophied and dilated, and the muscle to be affected with cloudy swelling and fatty degeneration. The kidneys presented the typical picture of acute parenchymatous nephritis in addition to the evidence of a former nephritis during childhood. The liver contained localized hæmorrhages and numerous thrombi, and consequent anæmic and hæmorrhagic necroses; also fatty degeneration and cloudy swelling. The hepatic veins showed, besides fresh thrombi and fibrinous and other hyaline thrombi, also still older organized thrombi. In the child's kidneys there were multiple hæmorrhages, diffuse cloudy swelling, fatty degeneration of the epithelium of the urinary tubules, and the latter were filled with detritus and red blood-cells. The liver showed, microscopically, the cells enclosing fat granules, and in other places the cell boundaries obliterated and the nuclei indistinct. In some areas the liver cells are changed to a structureless mass of detritus containing damaged blood-cells. While the vessels were filled with fibrin, there was no evidence of hyaline masses and no changes pointing to organiza-

tion, from which is inferred that the changes here found were of later date than those in the maternal liver.

As further illustrating the course of dissemination of the poison of eclampsia, another case is fully reported. It concerns a woman who, while about to be prepared for forceps delivery for moderately contracted pelvis, suddenly had an eclamptic attack. Immediate application of the forceps delivered a living child. The mother had three more convulsions after delivery, but ultimately recovered. The child died on the second day after several convulsions. Microscopic examination of the heart showed absence of striation and cloudy swelling. In the liver the nuclei were indistinct, the tissue was destroyed in masses, fatty degeneration, diffuse infiltration of red blood-cells, and structureless areas containing small-celled proliferation. The kidneys in this case repeated the picture found in the kidneys of the previous case.—*Monatsschrift f. Geb. u. Gyn.*, Bd. xix., H. 1.

Theodore J. Gramm, M.D.

LEUCOCYTOSIS IN DISEASES OF WOMEN.—Waldstein and Fellner conclude from thirty-three cases examined that, 1. Pus-containing adnexal tumors in their acute stages are associated with leucocytosis; 2. Leucocytosis continues longer than the fever, but it disappears in spite of the continuance of the pus collection; 3. Adnexal tumors not containing pus are not associated with leucocytosis. They have further examined the question in how far gynecological diseases are attended by leucocytosis. Ovarian cysts and uterine carcinoma presented nothing noteworthy. After profuse hæmorrhage from uterine myoma and ectopic gestation, the leucocytes were very numerous, the more severe and rapid was the hæmorrhage; if the organism be given time for regeneration, as in myoma with moderate hæmorrhage, leucocytosis fails.—*Centralbl. f. Gyn.*, 1903-51.

Theodore J. Gramm, M.D.

COMBINATION OF CARCINOMA AND TUBERCULOSIS OF THE UTERUS.—Wallart, after a lengthy review of the literature, calls attention to this condition and reports several cases. In one, a woman 55 years old, a curettement was made and the removed portions found to contain numerous tubercles besides adeno-carcinoma. In a second case, genital tuberculosis, secondary to the pulmonary affection, existed. Here was found the very rare combination of the two diseases in the cervix; the cancer probably being the younger disease. In another instance a patient suffering from cancer of the cervix had a tubercular infection of the endometrium, the latter disease having arisen subsequent to the cancer. Admirable lithographs accompany the article.—*Zeitschr. f. Geb. u. Gyn.*, Bd. 50, H. 2.

Theodore J. Gramm, M.D.

SOME RARE CASES OF RUPTURE OF THE UTERUS WITH ESPECIAL REFERENCE TO THE MECHANISM OF RUPTURE.—Knauer reports a case admitted with symptoms of threatened rupture of the uterus, which was delivered by craniotomy. Immediate examination revealed, besides marked thinning of the lower uterine segment, an entirely intact inner surface of the uterus and no palpable injuries. In the broad ligament, however, there was a large hæmatoma. On the fifth day post-partum abdominal section was performed for existing evidences of peritonitis. The peritoneum in the region of the symphysis over the hæmatoma was torn, the uterus much thinned, but no

communication with the uterine cavity. Exitus from peritonitis. The autopsy disclosed a primary isolated laceration of the uterine muscle without injury of the decidual inner surface of the uterus or of its serous external surface. Only secondarily was the peritoneum torn in consequence of its excessive distention by the hæmatoma, and the laceration was transversely to the longitudinal injury of the muscle. The cause of the occurrence of the rupture was a mass of cheesy lymph-glands which prevented the head from entering the pelvis, and so led to overdistention of the lower uterine segment. The case shows that lacerations do not always occur from within outward or conversely, but that the muscle may alone be ruptured, and subsequently the tear extend inward or outward. Three other cases are referred to which were induced by premature separation of the placenta, behind which the liberated blood collected and occasioned an overdistention of the uterus.—*Abstr. in Centralbl. f. Gyn.*, 1903-48.

Theodore J. Gramm, M.D.

THE NURSING OF INFANTS.—Schlossmann, in an article abstracted in the *Centralbl. f. Gyn.*, 1903-48, says: It is an axiom that every mother should nurse her child whenever possible, and opinions differ only as to the limitations of this possibility. There are no general contraindications. The presence also of tuberculosis, or of a pronounced tendency thereto, does not in every case justify an interdiction of nursing. The danger of infection through the milk is much less than from contact with the sick nursing mother. Frequently the father, sick with tuberculosis, is the source of infection, since being sick he overtakes much of the care of the children while his wife works. Nursing is not always injurious to the mother. On the contrary, it often favors the taking on of fat more than any other remedy; besides, it mostly prevents rapidly recurring conception. Of course, a tuberculous wet-nurse is not to be deliberately engaged. In mastitis nursing may be continued if the milk remain free from leucocytes. If an abscess form the other breast may be nursed from. Drawing the milk from the diseased breast every two or three hours will preserve its function. The possibility of exciting the mam-mæ to functional activity still exists for a considerable time after delivery. The quantity of milk is in general dependent upon the irritation brought to bear upon the mammary gland, and may be increased many times the usual quantity. Applying a strong suckling infant is the most certain remedy for exciting the secretion. The secretion of milk may be re-established in women even ten days after they ceased nursing. The abnormal condition of the infant's stools is not in itself an indication for changing the wet nurse. The general condition of the child alone should determine this. There is no artificial method of feeding which approaches the natural in equivalence.

Theodore J. Gramm, M.D.

TWO CASES OF OSTEITIS DEFORMANS IN ONE FAMILY.—(Kilner.)—The two cases were brother and sister past middle life. The woman case was a typical one in all its features, and the man's lacked one important symptom, notably, the enlargement of the cranial bones. The author believes this to be the first case on record occurring in one family. The disease was of slow onset and began almost simultaneously in each. There was in this instance a good opportunity to observe the effect of living, as one lived well and other suffered great privations, yet the result was the same. Neither mode of living affected the disease.

The writer is inclined to regard it as due to some septicemic dyscrasia and the bone changes as secondary manifestation.—*The Lancet*, January 23, 1904.

William F. Baker, A.M., M.D.

SOME OBSERVATIONS ON THE OCCURRENCE OF NEPHRITIS IN INFANCY.—(Beidert.)—This condition of infantile nephritis may be primary or secondary, but the primary variety is quite rare in children. The secondary form usually develops at the height of a febrile process, and its severity is generally proportionate to the intensity of the infection. Unless urine is carefully and systematically examined the complication is apt to be overlooked, as there are no symptoms at first. Holt made an analyses of 426 cases of broncho-pneumonia, occurring in children under 3 years, and there were only three cases of nephritis, and they were of the acute exudative variety. Perhaps more attention has been paid to the condition as a sequel to gastro-enteric disease, for Morse found renal involvement in 15 per cent. of cases. The writer in conclusion lays emphasis on the following points: (a) The importance of examining the urine of all acute infectious diseases of children, and particularly of these suffering with broncho-pneumonia; (b) the importance of a marked anæmia as a most pronounced symptom of kidney disease; (c) œdema may or may not be present, but when it is present it is a valuable sign, yet there may be grave kidney disease without it; (d) there is almost always a diminished secretion of urine, the mother noticing that the baby soils fewer napkins; (e) there are almost always grave nervous phenomenon and convulsions which in some cases are probably uræmic.—*American Medicine*, February 6, 1904.

William F. Baker, A.M., M.D.

DIETETIC TREATMENT OF ARTERIO-SCLEROSIS.—(Coley.)—As an epitome the writer offers: (1) The quantity of food should be greatly reduced, not more than one-half or two-thirds the general average for body-weight being required. This amount should be proportioned in detail as to the general rules laid down for the feeding of this class of cases. (2) The quality of food is quite important. Proteid foods are to be reduced, but not excluded. Meat should not be taken more than once daily and then only in small quantity. It should be our effort to see that only well cooked food, avoiding large quantities of fat and other foods which retard digestion, alcohol, tea, coffee, tobacco, etc., are to be used in moderation. Excessive water drinking, or large quantities of any fluid must not be indulged in. (3) The regulation of meals is very important. Breakfast consisting of fruit, cereal with cream and a poached or soft boiled egg should be taken, followed in five or six hours time with dinner, which should be the heaviest meal. This may consist of soup, fish, meat and vegetables. Then, again, a lapse of five or six hours and a light supper of fruit and cereals.

The best suggestion as to diet is that diet should be dry as nearly as possible.—*The Medical News*, February 13, 1904.

William F. Baker, A.M., M.D.

THE EFFICIENT TREATMENT OF CARDIAC FAILURE.—(Morrison.)—The writer divides the subject into the acute and chronic and makes a strong plea for the rational treatment of cardiac affections. He says four factors are concerned in cardiac affections, the neural, muscular, hæmic and mechanical, and that therapeutics must be in accordance based on the acceptance of this

idea. The heart of angina pectoris is a flaccid diastolic heart and should be treated by rapidly acting remedies, as, for instance, amyl nitrite, morphine, atropine alone or combined with volatile anæsthetics. In muscular failure we should use digitalis or its synergists, combining them in severe cases with mercurials or powerful vasomotor agents as the nitrites. In very bad cases venesection, drainage of anasarcaous limbs, paracentesis of chest or abdomen, are all indicated. In hæmic cases the trouble may be due to quality (opium), quantity or distribution of the blood. Mechanical factors concern especially valvular action. Under this heading the digitalis group of drugs is thoroughly discussed.—*The Lancet*, January 30, 1904.

William F. Baker, A. M., M.D.

THE OCCURRENCE OF CELLS WITH EOSINOPHILE GRANULATIONS AND THEIR RELATION TO NUTRITION.—(Opie.)—In concluding a very interesting article on the above subject, the author sums up by saying that in the tissues of the guinea pig, notably the mucosa of the gastrointestinal tract, and in the mucosa of the air passages, in the lymphatic tissue, and in the spleen, occur eosinophile leukocytes which are identical with those present in the circulating blood, and like them are provided with polymorphous nucleii. In the bone marrow occur large mononuclear cells with eosinophile granulations. These cells of the bone marrow undergo mitotic division and form daughter cells, which resemble in size the eosinophile leukocyte of the blood, while the cells in which the nucleus presents varying irregularities in shape may be regarded as transitional forms. In the blood and various organs the eosinophile cells give no evidence of multiplication.

The myelocytes with neutrophile or amphophile granulations are analogous to the myelocytes with eosinophile granulations, resembling them in size and the character of their nucleii. Muir found that when the amphophile leukocytes in the blood of a rabbit undergo continued increase as the result of repeated bacterial infection, the myelocytes of the marrow are increased in number and mitotic division proceeds rapidly. An analogous phenomenon has been noted in those guinea pigs, of which the circulating blood contains a very large proportion of eosinophile leukocytes. The number of eosinophile cells is far greater than usual, while particularly abundant are the large eosinophile myelocytes. Mitotic division of these cells is observed much more readily than in the marrow of animals in which the blood contains few eosinophile leukocytes. In certain instances in which the eosinophile cells have accumulated in the tissues, it has been possible to demonstrate their abundance in the bloodvessels of a part, and in one case the process of migration was actually demonstrable in the hardened tissue. In apparently healthy guinea pigs eosinophile leukocytes have been shown to migrate from the bloodvessels into the wall of a small bronchus, and hence through the epithelium into the lumen. Eosinophile cells manufactured in the bone marrow reach the tissues by way of the bloodvessels.

The number of eosinophile cells in one cubic millimetre of blood is found to vary from day to day, and at intervals of 3074 days undergo an increase. It is not improbable that the number of eosinophile cells which the bone marrow discharges into the circulation is a matter of periodic variation. Complete withdrawal of food is followed by a decrease, both in the proportion and in the absolute number of eosinophile leukocytes in the peripheral circulation. Disturbance of nutrition acting, doubtless, on the bone marrow affects the mul-

tiplication of the eosinophile cells more readily than that of the polynuclear leukocytes with fine granulation. Diminution in the number of eosinophile cells is preceded by a temporary increase, which may be explained by supposing that ripe eosinophile leukocytes already stored in the marrow reach the circulation, and are no longer directed to the intestinal mucosa. With the administration of food the eosinophile cells of the blood gradually increase in number, but neither the weight nor the eosinophile leukocytes increase continuously. That there exists a close relation between the nutrition of the animal and the eosinophile cells is shown by the fact that variations in weight and in the number of eosinophile cells take with much regularity opposite directions, so that a temporary fall in weight is accompanied by a rapid increase of the eosinophile leukocytes, while a rise in weight tends to retard this increase.—*The American Journal of the Medical Sciences*, February, 1904.

William F. Baker, A.M., M.D.

THE SIGNIFICANCE OF URINALYSIS IN PREGNANCY.—(Wilson.)—In closing, he says, as a result of study, we are often asked if eclampsia can be foreseen, and when foreseen can we in any way forearm ourselves in its treatment? Can this condition be avoided? Can a renal sediment predict an attack of eclampsia? In answer he puts forward the following:

1. Careful urinalysis should be carried out in all cases of pregnancy at frequent intervals and with increasing frequency as term approaches.

2. The most dependable indications of impaired renal function and of probable eclampsia have been shown by general experience to be presence of decided quantities of serum albumen, diminution in the quantity of urea, the presence of microscopic renal sediment (casts, blood, epithelium (renal)). The character of the latter when accompanied by the well known clinical signs of nephritis always constitutes a working basis for one of the probability of imminent danger.

3. Even if the urine appear normal there is some danger, especially in young women. Eclampsia in such cases is of equal severity with that of cases in which the urine has given due evidence of impaired kidney action.

4. When eclampsia supervenes upon labor in a subject with previously (apparently) healthy kidneys, the tendency subsequently is toward a return to normal renal function if the patient survives. The circumstances would seem to indicate still more strongly that the kidneys may actually have been normal up to the time of a temporary embarrassment and suspension of function.

5. Until the nature and ultimate cause of uræmia and eclampsia be more thoroughly understood, it would appear that urinalysis, though not an unerring guide, is our most valuable index of the condition of the kidney and our most trustworthy source of information as to the danger from such forms of toxæmia.

6. The prognosis seems to be vastly improved if the eclampsia be combated with generous bleeding, followed by venous transfusion with normal salt solution. These measures reduce and dilute the poison in the circulation and relieve cardiac distress. Free diaphoresis and purging are of course indicated.—*The American Journal of the Medical Sciences*, February, 1904.

William F. Baker, A.M., M.D.

ÆTIOLOGY OF CARCINOMA.—(Monsarralt.)—In his investigations he asserts that from a considerable proportion (over 58 per cent.) of specimens of car-

cinoma mammæ an organism presenting characteristic features was isolated. This organism presents a life history in which two cycles are traced, one being a vegetative budding cycle and the other a sporulating cycle. Another feature of the organism is the fact that when injected into animals it is capable of infecting and inhabiting endothelial and epithelial cells. The action in the endothelium may be said to be an irritating one, causing a process of proliferation, as a result of which masses of new tissue are built up which consist of a parenchyma and a stroma, and grow and extend rapidly from their centres of origin. This new cell mass-formation may be associated with a growth of similar character in the neighboring glands, and some evidence was also provided of visceral metastatic growths. Intracellular bodies are demonstrable in carcinomata mammæ which present the same features of intracellular parasites of the experimentally produced nodules.

The evidence derived from these researches points to the conclusion that the organism described is an ætiological factor in the morbid processes known as carcinoma mammæ.—*The British Medical Journal*, January 23, 1904.

William F. Baker, A.M., M.D.

A CASE OF PURULENT PERICARDITIS SECONDARY TO PNEUMONIA: OPERATION: RECOVERY.—J. A. Scott, Philadelphia, reports the following case: An Italian laborer, aged 36, was admitted to the Pennsylvania Hospital with the history of sickness of six days' duration, beginning with chill, cough and pain in the right side. The right base was consolidated; the pulse and heart-sounds were weak, though the heart was not displaced. On the ninth day of the disease consolidation of the left base appeared with extensive pleurisy, especially marked about the left cardiac border. On the sixteenth day the right base had not cleared. Though no pericardial friction had been heard, by the thirteenth day the pericardium was considered involved, empyema of the right base having been excluded by exploratory puncture of the suspected area. The apex-beat was not visible or palpable, and by the twenty-first day the cardiac dulness was decidedly increased in all directions, especially toward the right. The paradoxical pulse was marked on the eighteenth day. An exploring needle inserted in the fourth right space secured 10 c.c. of turbid, greenish fluid. On culture, a pure growth of pneumococci was found. On the following day the pericardium was aspirated in the same place and fourteen ounces of turbid seropurulent fluid withdrawn. In seven days this had reaccumulated, and puncture showed thick, yellow pus in the pericardium. Operation was then undertaken. Chloroform anaesthesia was attempted, but caused so much struggling and cyanosis that local anaesthesia with cocaine was substituted, and the fifth space incised in site of normal apex-beat. The pericardium was opened, and between a pint and a quart of non-odorous pus slowly liberated. The man was very ill for two weeks after operation, but at no time were pericardial friction-sounds heard. The drainage-tube was removed on the twenty-sixth day, and the patient discharged from the hospital on the fifty-first day after operation. The special interesting features of the case were:

1. The absence of a leucocytosis during the pneumonia, and its development with the pericarditis.
2. The absence of the pericardial friction both before and after the pericardium was opened.
3. The absence of fever—subnormal temperature—with pus in the pericardium.

4. The recovery of the patient without the physical signs of an adhesive pericarditis.—*New York and Philadelphia Medical Journals*, January 30, 1904.

Gustave A. Van Lennep, M.D.

FIBRINOUS VESICAL CONCRETIONS.—Elliot, Boston, reports the unique case of a man, 54 years of age, fish dealer, who had suffered for the last six years with sudden attacks of abdominal pain, accompanied by vomiting, the pain lasting as a rule two days, and confining him to bed for a week. During these attacks the urine would be bloody. Pain starts in the left flank, goes down into the groin as far as the testicle. On two occasions the patient passed a small stone through the urethra. The searcher failed to reveal a stone in the bladder; X-ray and urinary examination were also negative.

Under anaesthesia, bimanual palpation with two fingers in the rectum revealed a mass at the base of the bladder; the prostate was somewhat enlarged. A suprapubic operation was done, and two large, ovoid, smooth, soft masses, about the size of a small hen's egg, found floating free in the bladder and removed. Convalescence uneventful. The masses on section proved to be laminated; between some of the layers were spaces, which may have been occupied by fluid. The structure was a homogeneous, slightly gritty, coagulated material, composed of fibrin and mucus, mixed with particles of urinary salts, in the centre of which was a small calcic phosphate nucleus.—*Annals of Surgery*, February, 1904.

Gustave A. Van Lennep, M.D.

ECLAMPSIA AND VAGINAL CÆSARIAN SECTION.—Ahlfeld criticises the procedure of Westphal, who incised the lower uterine segment and rapidly delivered a woman in eclampsia (see abstract in *HAHNEMANNIAN MONTHLY*, January, 1904). He says that this operation can hardly be called a Cæsarian section, although this is a secondary matter. He believes that such publications may do much harm and may cause many a woman to lose her life. While acknowledging that he has admitted that such a procedure may be indicated in individual cases, he says it is an old rule that operations dangerous to life are only justifiable for existing or threatening danger to life. If such does not exist, and if there are other means whereby the danger may be overcome, the latter are first to be used. But few obstetricians would regard eclampsia from the first as a complication justifying dangerous intervention. It depends rather upon the individual case.

It is true that lately Duhressen has obtained a strong supporter in Bumm, who advised that "every eclamptic should be delivered immediately after the first convulsion; and if the advanced dilatation of the cervical canal does not permit delivery in other ways, hysterotomy anterior and podalic version is to be undertaken." The advice to deliver rapidly rests upon the fact that after delivery there is a tendency for improvement of the attacks to occur either in their number, even their cessation, or they become milder. If it were an absolute fact that the attacks always ceased after delivery, or if only the percentage of cases terminating otherwise were less, a justification would be furnished for a rapid delivery. Such, however, is not the fact. Convulsions after delivery take place in a large percentage of cases, although they tend to be milder, and cases are often enough reported where rapid delivery could not save the patient. Of course, these cases cannot be equally judged, since it makes a great difference whether the patient received suitable treatment from

the beginning, or only after numerous attacks. The gravity of the attacks, the general condition, and, above all, the advance of labor modifies the prognosis. This complicates the indications for treatment, and especially for operative intervention. No general rules can be formulated. Under the circumstances, Ahlfeld does not agree with the suggestions of Duhressen and Bumm, and as far as he can judge would have treated the case with a hot pack, rubber bag to dilate the cervix, removal of all external excitants, morphia if necessary, and delivery as required. He reports several cases wherein this treatment was successful.—*Centralbl. f. Gyn.*, 1903-52.

Theodore J. Gramm, M.D.

HAND STERILIZATION.—Fueth and Mohaupt have re-examined the question by means of bacterial culture, whether the method of hand sterilization, consisting in scrubbing with soap and hot water followed by alcohol, is capable of bringing about a state of freedom from germs to the extent insisted upon by Ahlfeld. Several experimenters have failed to confirm the latter, and subsequently Schaeffer's experiments seemed to indicate that while Ahlfeld's claims are perhaps exaggerated, the method is still capable of bringing about a state of germ paucity upon and in the skin of the hands that the danger of wound infection need be no greater than that originating from the air. v. Winkel, who has never allowed the question to rest, has inspired its re-examination, and the authors first named have devoted extensive efforts to the proving of Schaeffer's results. They have reproduced as nearly as possible the conditions of Schaeffer's experiments and used the same bacteria, and after reporting the details in a rather extensive article reach the conclusion that the hot water-alcohol method is not capable of sterilizing the hands to the extent believed by Ahlfeld, so that thereafter the same germs may not be reobtained; neither is it capable of diminishing the number of germs to the extent suggested by Schaeffer.—*Monatsschrift f. Geb. u. Gyn.*, xviii., H. 6.

Theodore J. Gramm, M.D.

THE ÆTIOLOGY AND PATHOGENESIS OF DYSMENORRHOEA.—Schultz has presented an article on this ever interesting subject wherein he has formulated his ideas concerning the origin of dysmenorrhœa. He says in no part of gynæcology are there so many points of contact with neuropathology as in menstruation and its disturbances, and nowhere are there so many difficulties presented in distinguishing between primary and secondary conditions. This depends upon the fact that dysmenorrhœa is not a disease in itself, but only an abnormal condition, in fact, only a symptom, attending not only various diseases, but also affecting individuals whose genitalia show no abnormalities on minute examination. The diagnosis of "dysmenorrhœa" has no place in scientific medicine. Our endeavor should be directed to finding anatomical or at least functional, changes, which explain why the menstrual process is associated with such severe pains. This is one of the most difficult tasks in gynæcology. For many years an obstruction in the uterine canal was believed to be the only cause of the pain, and in later times it was regarded as being related to the most various pathological conditions. A purely nervous origin was also accepted. A number of considerations respecting the ætiology and certain characteristics of dysmenorrhœa are reviewed. Schultz believes that at puberty and in many virgins and nulliparæ there is a lack of development of the several uterine muscular layers, and that there is a disproportionate

development between the muscular and vascular systems, as compared with the connective tissue, and by reason of defective muscular contractility induces a condition of overdistention, and hence internal tension comparable to the condition in the inflamed kidney, in certain glands and other organs when inflamed.

He concludes that the dysmenorrhœa of young girls and nulliparæ, whose genitalia are found to be normal, is not necessarily a symptom of a general neurosis which has no reference to the condition of the genitals, but it may be caused by a defective organization of the infantile connective tissue in the outer layers of the uterus at the time of puberty and later. 2. In dysmenorrhœal pains there are two kinds to be distinguished, the pre-menstrual and the menstrual; the former simulates the pains by an over-distended capsule in other parenchymatous abdominal organs; in the latter it is due to menstrual contractions of the uterus. 3. The permanent relief of dysmenorrhœal pain after the first pregnancy is due to the development of the uterine walls, especially of the external, and of improved circulation brought about by pregnancy, by the deep lacerations of the uterine walls in the region of the internal os, and further to the permanent structural changes in the mesometrium. —*Monatsschrift f. Geb. u. Gyn.*, xviii., H. 6.

Theodore J. Gramm, M.D.

A DISEASE OF DENTISTS.—It has been discovered in four-fifths of practicing dentists an affection of the right eye, characterized by divergence, diminished light sensibility of the retina, a scarcely detectable increased intraocular tension, and a lowered visual acuity. These disturbances are especially noticeable in dentists who work at gold fillings. In this class the amblyopia was more marked among those who were engaged in fillings requiring the constant use of the mirror. He describes the condition as a progressive amblyopia ex-anopsia, resulting from disease of the affected eye; the right eye being less adapted for precision, owing to its position and the interposition of the nose. This occupational squint develops very gradually, and was observed only in those who had been in practice at least ten years.—Stankovic, Belgrade, *Annals of Ophthalm.*

William Spencer, M.D.

COMPOSITION OF AQUEOUS HUMOR IN CASES OF SENILE CATARACT.—Troncoso, Uribe, Mexico, presents an elaborate study of ten cases where he analysed the aqueous and came to the following conclusions:

1. The quantity of albumin is not increased in the aqueous during cataract formation.
2. In incipient nuclear cataract the saline constituents are increased; not so in incipient cortical cataract.
3. Toward the period of maturity the aqueous seems about normal.
4. In over-ripe cataract there is an increase in the proportion of organic material in the aqueous.
5. There are two distinct physical periods during the formation of cataract, one of absorption of water (and swelling), one of loss of water and contraction; but it cannot be admitted that the increase in the quantity of salts causes opacification.
6. This increase in proportion of salines in incipient cataract encourages the belief that during the period of initial cataract there is a subtraction of water, a drying of the nucleus, and as this contracts the changes in the perinuclear zone begin.—*Annals de Optalmologie*.

William Spencer, M.D.

BLEPHARITIS.—Wolffberg, Breslau, has found benzine and peroxide of hydrogen two efficient agents in the treatment of blepharitis. The former is applied on cotton pledgets. The lids are firmly closed and the margins ectropinized when the benzine is thoroughly rubbed into the base of the lashes. The peroxide may be dropped upon the lashes, and has the advantage that it renders visible the crusts which are at times so intimately fastened to the ciliary margin as to be otherwise imperceptible.

After the cleansing, yellow salve is to be rubbed in, and if the case be stubborn, it is also applied to gauze and allowed to remain on lids over night.—*Annals of Ophthal.*

William Spencer, M.D.

ROENTGEN AND RADIUM RAYS IN OCULAR THERAPY.—Darier, Paris, gives the results obtained with the above agents in the treatment of a variety of affections. The first was one of alveolar small-celled sarcoma, in which the tumors were situated in the eyelids, conjunctiva, face and neck, with extension into the mediastinum as far as the heart. After ten treatments, of ten minutes each, extending over a period of fifteen days' time, all the facial tumors disappeared and the eyes could be opened normally. The mediastinal growths were undergoing absorption. In a case of specific choroiditis with stubborn periorbital neuralgia, twenty-four hours' application of radium gave complete relief. In a case of extensive traumatic hæmorrhage into the vitreous, vision improved from one-tenth to one-third, with a corresponding clearing up of the vitreous after twenty-four hours' application. Two cases of retinal detachment and one of parenchymatous keratitis were improved.—*Annals of Ophthal.*

William Spencer, M.D.

QUININE INTOXICATION.—A case is reported by Reina of quinine intoxication as the result of a dose of three hundred grains. Epigastric distress, accompanied by dizziness and loss of consciousness, immediately followed the injection of the drug. This condition persisted for three days' time, when the patient partly recovered, complaining of severe headache, tinnitus, and, later, deafness and blindness.

Eight weeks after this the hearing returned, the cephalalgia had diminished, and the vision began to return. Six months later the vision of each eye equalled one-third of normal. The visual field of the left eye was reduced to fifteen degrees in and down, to twenty degrees out, and to twenty-five degrees upward, while that of the right eye was similarly, though less, reduced. There was complete "achromatopsia." The pupils were slightly dilated, and the irides reacted slowly to light. The ophthalmoscopic picture was that of advanced atrophy seen after embolism of the central artery, combined with white atrophy, which is consecutive to acute papillitis. The treatment ordered consisted in ocular massage, inhalations of amyl nitrite, the internal administration of strychnia, combined with friction of the forehead with tincture of nux vomica and a balsam.—*La Clinique Ophthal.*

William Spencer, M.D.

ON REMOVAL, AFTER SUPRAPUBIC CYSTOTOMY, OF THE PROSTATE AND OF THE PROSTATIC URETHRA.—Moynihan (Leeds) has operated upon a series of twelve cases of senile enlargement of the prostate, by removing the prostate and the prostatic urethra. The first case was done on September 3, 1901.

The prostate was easily shelled out from its capsule, bringing with it the whole of the prostatic urethra. As no untoward symptoms resulted from this, and the patient was, and still is, able to pass his urine in a perfectly natural manner, the same operation was done on eleven other cases with uniformly good results, with the exception of one case which proved fatal. The ages of the patients have been 59, 66, 56, 60, 57, 60, 73, 72, 65, 73 and 68. In four of them a stone was found, and upon one of these patients a suprapubic operation had been performed for stone fourteen years before.

The operation is carried out as follows: The bladder is washed out with a 1-per-cent. carbolic acid solution, and ten or twelve ounces of the fluid allowed to remain. It is then opened above the pubes and fastened to the abdominal wall by two silk-worm-gut sutures passing through its wall and the entire thickness of the abdominal wall, one on each side. These sutures are not removed till the fourth day. With the left forefinger in the bladder, a snip is then made with a pair of sharp-pointed scissors into the mucous membrane of the trigone, immediately behind the internal meatus of the urethra. The tip of the finger then deepens and enlarges this opening. Two fingers of the right hand, on which a glove is worn, are then passed into the rectum, and with the thumb on the perinæum the prostate is raised and fixed while it is being stripped from its capsule. The enucleation is easy and rapidly performed, as a rule, in from two to five minutes. The larger the prostate the easier the stripping. There is little bleeding, as a rule, although in two cases it kept up for twenty or thirty minutes. Very little gap seems to be left in the base of the bladder. The latter is washed clear and drained. Considerable pain follows the operation, making the use of opium advisable. The tube is removed in forty-eight hours and the patient allowed to sit up, *and let out of bed at the end of a week*. The bladder is washed out daily, and a drag used on the suprapubic wound from the seventh day on. Between the fourth and fifth weeks the patient begins to pass urine spontaneously. Urotropin or helmitol is used in 10- to 15-grain doses three or four times daily. In two cases, where the cystitis was very severe and the urine most foul, after the bladder had been washed out, a stream of oxygen was passed through the catheter, and the bladder, as it were, washed out with oxygen. Over the suprapubic wound a tight-fitting impervious cap was placed, having a small leak to allow of the escape of the gas. In this way the healing of the wounds was certainly hastened.

It is, as a rule, only in the cases where catheter life is impossible or has ceased to be a relief that operation is advised. The author urges strongly that these old folks should not be kept in bed too long after operation. They should be allowed to sit up within two or three days of the operation, and hedged around with every care and comfort. A synopsis of the twelve cases is appended.--*Annals of Surgery*, January, 1904.

Gustave A. Van Lennep, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

KALI HYPERMANGANICUM IN DYSMENORRHŒA.—Dr. H. Khoury (Beyrouth) is quoted by the *Allgemeine Hom. Zeitung* (December, 1903) as placing implicit reliance in kali hypermanganicum for many severe cases of dysmenorrhœa.

He discerns a great similarity in its action to iron preparations, notably complementary and supplementary to the same, in chlorosis.

The remedy formerly only used by old school, as a local antiseptic, has of late been accorded some therapeutic application in chlorosis, and as an emmenagogue.

Dr. Khoury cites five cases of dysmenorrhœa showing marked improvement under the internal use of this remedy, of which we beg to subjoin three as illustrative.

CASE I.—Girl, æt. 17, afflicted with dysmenorrhœa, from very onset of first menses, which were always tardy. Kali hypermanganicum was given, twenty days preceding expected menses, with the result that the period occurred at the regular time, pains greatly mitigated, though quantity of blood was very scanty. The following period was attended by no pain, and the flow was more profuse, blood being red. The drug was continued unremittingly, until completely normal menses, within three months, rendered its further use unnecessary.

CASE II.—Girl, æt. 16, dysmenorrhœa for six months. The prescribed ferruginous pills, owing to intolerance, were discontinued and kali hypermanganicum substituted. The menstrual flow, generally only a few drops of red blood, accompanied by moderate pain; no positive results during first month; pains ceasing entirely, but flow still scanty during second month; increased flow by the third month, and decided improvement evidenced by fourth month.

CASE III.—Woman, æt. 22, married five years; childless; dysmenorrhœa; high degree of anæmia. After two months persistent use of this remedy menses were almost normal, as to time and quantity, despite the fact that anæmia remained in *statu quo*.

In reference to the *rationale* of the action of this remedy, Khoury considers the specific influence exerted upon the red blood-corpuscles, modifying them biologically and structurally, and thereby influencing the oxidizing prop-

erties of blood. Furthermore, a pronounced action is evident upon nutritive processes and respiration. These supposed effects seem to be amply verified clinically.

The remedy is readily tolerated by the stomach, exciting neither diarrhœa nor constipation. A blackish-violet color of the urine was noted in one case. Dose : 0.05–0.30 in pill form.

Homœopathically, these generalities are worthy of further extended study. The acetate and carbonate have been employed by our school in chlorosis, when anorexia and gastric symptoms were present ; so also in anæmic girls with too frequent, scanty menses. A characteristic symptom of this remedy is : whole body hypersensitive to contact.

Manganese was creditably studied by Hahnemann. Kali hypermanganicum by H. Cullen, who ascribes to it a specific action upon the naso-pharyngeal mucous membranes, attended by blood-streaked, foul, carrion-like secretions, and, therefore, effectually used in severe cases of diphtheria.

The reputed, pronounced action, upon the blood and female sexual system, has, as yet, obtained scant notice from our school, and suggests further conscientious proving.

Manganese, in large doses, disorganizes the red blood-cells and so induces anæmia ; but as to its relation to anæmia, the question is still open to consideration.

It is claimed that by chemically altering the blood it intensifies or enriches its oxidizing power, and so removes the chlorosis and regularizes the disordered menstruation.

It is to be questioned whether all of the above effects are to be attributed to the manganese element solely, and not in part to the kalium. A belief in a partial influence of the latter is justifiable, from a knowledge of the clinical efficacy of kali carbonicum, in derangements of the female sexual organs and in its potent influence upon the heart and blood life.—*Allgemeine Hom. Zeitung*, December, 1903.

GRAY CATARACT.—Dr. Guollon's method of inhibiting the progress of cataract is unique, though not strictly homœopathic, and consists in prescribing in rotation our valuable antipsorics. He begins generally with administering a powder of sulphur (3 drops of 12x) say, Monday evening, to be followed by silica 12x, one powder, the subsequent week ; then within eight days calcarea carbonate 12x ; and, finally, lycopodium 12x, thus covering a period of one month, after which he begins again with sulphur and continues this weekly rotation until beneficial results are manifest.

The above remedies are eradivative to the underlying gouty or rheumatic dyscrasia, deemed by Goullon as prime causes of this form of cataract.

He cites several cases where operations were strenuously advised that showed pronounced arrest in further development under the above medicinal treatment.—*Leipziger Populare Zeitschrift für Homœopathie*, December, 1903.

DILATATION OF THE SPHINCTER-ANI AS A THERAPEUTIC PROCEDURE.—Dr. Eug. Hubbard relates some cases in *Medical Counselor*, which are somewhat out of the ordinary as regards results obtained from the simple procedure of anal dilatation. For instance : A woman, aged 76 years, was suffering from asthma which prevented her lying down. There was a general dropsical condition present. The prescribed remedies did not produce any ameliora-

tion, so upon the second visit the doctor dilated the sphincter-ani and also passed urethral sounds. Breathing at once became easier, and the general dropsy disappeared. Another woman, aged 40 years, was suffering from spasmodic asthma. Had been unable to lie down or sleep for a period of three days. Dilatation of the anal sphincter by a trivalve speculum was immediately followed by better breathing, and before the physician left the house the asthma had disappeared. It returned six months later, and was again relieved by the same procedure. These and several other cases would seem to indicate that dilatation of rectal sphincter may be a therapeutic procedure of wider applicability than is generally supposed.

SOME BRIEF NOTES UPON A FEW OF THE NEWER REMEDIES.—In an article upon "Valuable New Remedies," Dr. William H. Honn refers to his experiences with several less frequently used drugs.

Asparagin, the active principle of asparagus, he uses when the action of the kidneys is faulty. Small amounts of urine are excreted, heavily loaded with solids. He gives doses of 1.67 gr. frequently, until the urine is free, and finds it very useful in both acute and chronic nephritis, as well as in urethral and bladder difficulties.

Arseniate of Antimony he regards as the best remedy for pertussis. In the second decimal trituration, he prefers it to the ant. tart., because it is a stimulating remedy, while the tartar emetic in the same strength is sometimes very depressing.

Crataegus oxy. he uses with good effect in tobacco heart.

Aspirin, which is one of the newer synthetical compounds, the author claims has cured his cases of acute rheumatic fever quicker than other remedies.—*Medical Counselor*.

EUCALYPTUS.—In acute rhinitis, coryza and in recent colds, this new remedy has been found particularly useful. The nose is stuffed, with tightness across the bridge of the nose; dull, frontal headache, irritation of nasal mucous membrane, burning in the naso-pharynx. The catarrhal inflammation tends to extend downward. The ethmoid and frontal sinuses are involved, with severe pain above the eyes and over the nose. The second decimal dilution has been used.—*Chironian*.

PERSONAL EXPERIENCES IN ANGINA PECTORIS.—The article of M. B. Smith, M.D., in *Medical Age*, contains some practical points which ought to be thoughtfully considered by every physician. The doctor suffered from this serious symptom to such a degree that his life was threatened. By the careful regulation of his life he has escaped attacks for years. He says that it is better to be alive and to live along quietly and unassumingly, than to be dead with even a big notice in a prominent medical journal. This remark will bear thinking over. Dr. Smith found, by personal experience, that no drug nor method of treatment will do much for the actual attack. Therefore, do not temporize; but, as quickly as may be possible, get the patient to *live* in such a manner that the possibility of future attacks is decreased. The patient must drop every kind of work that seems to bring on an attack. He must avoid the occasions which irritate and annoy him. He must get enough sleep; must eat the proper sort of food, and take the kind of exercise that will clear his brain, stimulate his heart and remove anxiety. Rest, in the recumbent position, is the best restorative for the weakened heart. After fif-

teen years of this kind of "treatment," the author finds his health excellent and his heart condition satisfactory.

MERCURIUS IN ACUTE BRONCHIAL AFFECTIONS.—Mercurius deserves a prominent place in the therapeutics of acute bronchitis, first, because it suits so perfectly so many cases of the trouble that have started above and worked steadily downward through the trachea into the bronchia. That is the way our colds do in this climate; at least very often. Most of our cases of acute bronchitis may, I think, be more properly classified as cases of rhinitis, laryngitis, tracheitis and bronchitis, and it is in such a combination that we need a remedy that can follow an inflammatory process along the entire respiratory tract, at least as far as the moderate sized tubes. Again, the prominence of local symptoms pointing to an irritated, painful state of the mucous surfaces is, to my mind, a useful and common indication for this remedy. We often have the mucous surfaces irritated and inflamed all the way from the fauces to the smaller sized tubes. The symptomatic indications of such a condition are very distinct when mercury is called for: Dryness, smarting, roughness and soreness. Consequently, when the patient coughs it is attended by pain. A dry, rough, raw, painful cough. It is a fact that cannot be gainsayed that the mercurius cough will be aggravated by lying upon the right side. You may explain this as you please, yet the fact remains and cannot be ignored in the prescription. There is hoarseness. I do not think we should say complete aphonia, but rather a husky, veiled voice, so that when the patient attempts to speak he must clear his voice; and, again, he will experience the same rawness and roughness already referred to. Indeed, the rawness may bring tears to the eyes. This will explain just how he feels about talking, clearing the voice or coughing.

You will find mercurius particularly appropriate for some of that large class of humans, young and old, who are so sensitive to slight exposures, that every little draught of air or slight indiscretion brings upon them a severe "cold." Having begun, such a cold runs a protracted and extensive course. The nose discharges profusely—in a stream—the constant use of the handkerchief results in excoriation of the edges and tip of the nose. The mucous lining of the nose becomes swollen, so that we have that annoying combination of stuffy, obstructed nostrils, with, at the same time, a profuse, excoriating coryza. I like to remember, too, that in this rapidly extending inflammation, we shall probably have some involvement of the sinuses and the Antrum of Highmore. If there should be no ready exit for the mucous secretions of these cavities, great pain and much general disturbance will result. We may suspect such an involvement, if our patient should have tensive pain over the antrum or over the forehead above the brows, with heat and throbbing there.

In this early stage of the trouble, the nasal discharges will be thin and excoriating; and this will be true of the laryngeal, as well as the bronchial, secretions. The discharges may be yellowish later on, but I believe the irritated condition will persist. We are not surprised, knowing of the extreme irritation of the mucous surfaces, that the mercurius cough is often violent, paroxysmal and exhausting in severe cases.

Then, I think, we should remember the very considerable general disturbance that usually accompanies the mercurius catarrhal state: The feverishness. It is a fever with a very marked inclination towards sweating. Usually,

sweating relieves a feverish state, but not so if it is a mercurius fever. In this remedy, the profuse sweating is simply another unpleasant feature of the fever. This patient will likewise be annoyed by what we may term "chilly creeps." This feverishness, chilliness and sweating may alternate rapidly; and the chilliness will not be improved by external heat. It may, indeed, be increased by sitting too close to the fire. We must also take cognizance of another peculiarity of the mercurius condition. The aggravation of the symptoms at night; and, seemingly, too, by the warmth of the bed covering. All these things the student of mercurius must know and become familiar with before he begins to pick out the finer symptoms of the remedy as it is related to acute bronchial attacks. He must also remember that the mercurius cold is almost universally accompanied by some disturbance of the alimentary tract. A heavily coated tongue, a foul breath, a total aversion to food, although he may crave cold drinks, a headache and, possibly, disturbed bowels. This *resume* is artificial, but it shows the sort of groundwork that we must build upon, in adapting a drug to a disease.

THE ALUM ENEMA IN THE AFTER-TREATMENT OF ABDOMINAL OPERATIONS.—*The American Medical Monthly* again calls attention to the importance of this subject by referring to the paper of Virgil O. Hardon, M.D., published in 1901. Intestinal paresis after abdominal operations is a much dreaded complication. The editor has several times tested the efficacy of the alum enema in this condition, and with most satisfactory results. He used an enema of one ounce of powdered alum to a quart of warm water. It has also been used successfully in non-surgical cases, such as typhoid fever.

OSTEOPATHS.—We actually had a case returned to us by an osteopath lately, with the following advice: "This case is one that needs the services of a medical man, rather than osteopathic treatment." From which it would appear that there are classes of osteopaths. The woman had consulted the wise man for treatment of an internal malady. We regard this isolated instance of discrimination as unique. Dr. Kraft has remarked that Christian Scientists have not, as yet, learned the golden rule, although they teach that God is love.

THE USE OF VENESECTION IN PROPER CASES.—William Wormly, M.D., speaking of the utility of venesection in certain properly selected cases, has the following advice to offer upon the value of this therapeutic procedure in acute pneumonia: "If, now, the heart be unable to bear this strain, the right auricle and ventricle become distended to such an extent that their power is greatly diminished, or, perhaps, entirely suspended. With such an enfeeblement of the right heart the pulmonary circulation becomes sluggish, the left ventricle is poorly supplied with blood, and the pulse at the wrist is small and feeble. At the same time cyanosis develops from failure of the lesser circulation. The condition of affairs above alluded to is also indicated by the presence of a feeble pulse, with the heart beating tumultuously, and it may be with a fair degree of force, while percussion will show an area of cardiac dullness extending beyond the right border of the sternum and a distinct area of dullness in the third right intercostal space. In such a case, the letting of a few ounces of blood relieves the right side of the heart from pressure, possibly sufficiently to allow of its continuing its work, at least for a period."—*Medical Times*.

SAMBUCUS CANADENSIS AS A DIURETIC.—The profession is constantly seeking a more efficient remedy or more efficient remedies for that distressing and preplexing clinical picture—general anasarca with lesions in heart, liver or kidneys, or lesions in all of these organs. And it must be admitted that there is room for improvement in our therapeutic expedients available for this troublesome condition. Digitalis infusion, cathartics, diuretics, the constantly added to German specifics, all of these are just as apt to disappoint as they are apt to please by their effects. Even the carefully chosen similar remedy is less effective in the presence of such a handicap to vital reaction, as water-logged organs and tissues. For these reasons, one harkens attentively whenever an observer has something to say or to write about the wonderful diuretic effects of a new drug. Recently, Dr. Randall has brought up the matter of elder-flower tea as a diuretic. This remedy was perhaps better known to our great-grandmothers than it is to the present generation. After having been repeatedly disappointed with the action of the usual cathartics and diuretics, this observer finds that the fluid extract of *sambucus canadensis* “comes as near being a specific as anything he has ever tried.” This is a form of expression that is funny, although those who use it do not intend to be amusing. Dr. Beverly Robinson has been extensively quoted (*Eclectic Medical Journal, Wis. Med. Recorder*) as having added the weight of his testimony to the efficacy of the elder as a reliable diuretic. This observer has referred to its use in the large Paris clinics for this purpose. In interstitial nephritis, to diminish the arterial tension, and to remove the threatening symptoms of uræmia, the infusion or decoction of the bark has seemed more active than the fluid extract. These things have been said a long time ago. Hahnemann had great faith in the powder of *sambucus* to remove dropsy, because he knew that it could cause it. One almost gets tired of saying this about so many of the drugs that are recommended, because the point is so seldom seen. *Sambucus*, for example, has so many local œdemas, so much oppression and dyspnoea, albuminous, profuse urine, cardiac weakness and so on, that it too, probably, acts by reason of its homœopathicity in such cases.

SOME ECLECTIC EXAMPLES.—The *Eclectic Medical Gleaner*, a little periodical that we have often referred to as one that contains much that will interest the therapist, gives its readers some pointers like these. In the treatment of the prevalent “grippe,” the editor says he sticks to his favorite prescription of gelsemium, x-xx drops; bryonia, ij-ijj; water, iv ounces. Teaspoonful at intervals of from fifteen minutes to the hour. In muscular rheumatism, he finds macrotys (*actea rac*), one or two drachms; bryonia, five to eight drops; water, four ounces, very effective. In case there is fever, aconite is used to replace the bryonia. In case the joints are likewise inflamed, *phytolacca* is added. This is very interesting to us, because it shows how *near* to the truth the eclectic practitioners come. Of course, such prescriptions are effective and cure, else they would not be prescribed; for the men who prescribe them are not, by any means, lacking in either wisdom or acumen. But, would not their results be still more brilliant, if their differentiation of remedies was carried just one step farther to the prescription of the single remedy. We would like to know. Are these combinations really more effective?

THE HAHNEMANNIAN MONTHLY.

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GONORRHŒA IN WOMEN.

BY THEODORE L. CHASE, M.D., PHILADELPHIA, PENNA.

(Read before the Homœopathic Society of the State of New York, Albany, Feb. 9 and 10, 1904.)

UNTIL within recent years gonorrhœa in women has not been given the careful and serious study that the same disease has received in men. The pathologic changes occurring differ markedly on account of the distinctive difference in the anatomical arrangement of the female generative organs. The greater area of tissues liable to infection by continuity is responsible for the more rapid spread of the disease. This is readily understood when we consider the near proximity of the uterus, its adnexal organs, and the pelvic lymphatics and peritoneum. The periodic vascular changes taking place during the menstrual epoch, and those incident to labor and the puerperal state, constitute another important feature to remember. Previous to the discovery of the gonococcus by Neiser in 1879, it was generally defined in medical literature as inflammation of the genito-urinary tract produced by exposure to cold, disorders of menstruation, and local manifestations of constitutional diseases. Every year since, we have acquired valuable additions to our knowledge bearing upon the wide range of its pathologic influence. This specific infection in women carries with it a long train of most serious disorders, leading to suppurative inflammations, which undermine the health and threaten the life of the patient.

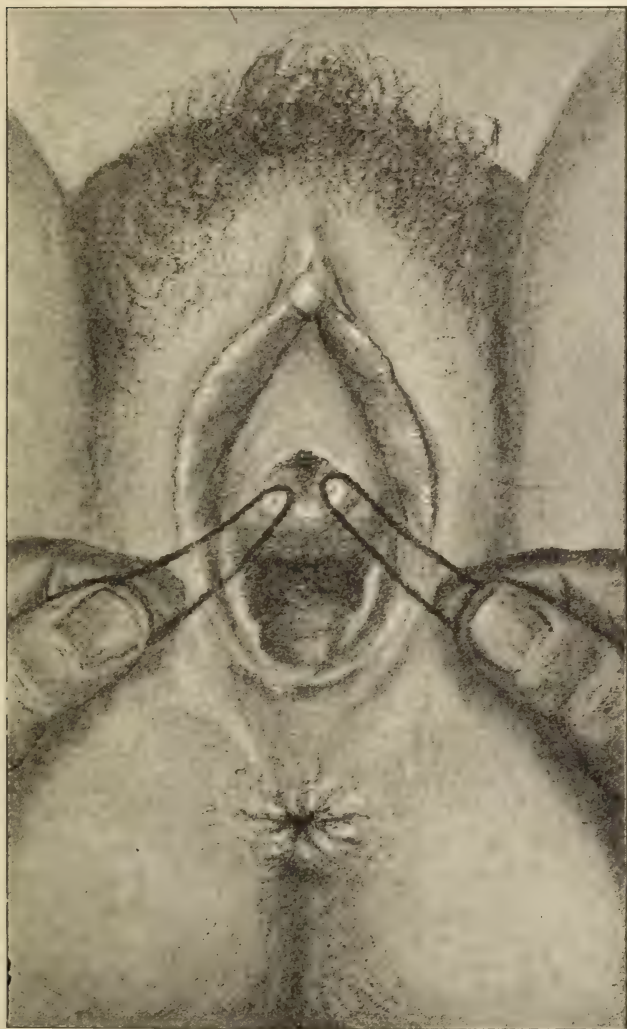
The gonococcus finds its most favorable soil on mucous and serous membranes, and in tissues subjected to long periods of congestion. It has a special affinity for the urethral mucous membrane, Skene's glands, the vaginal mucosa, the vulvo-vaginal glands, the tissues within the cervical canal, Fallopian tubes, ovaries, the pelvic lymphatics and peritoneum. It has been found circulating in the blood, lymph streams and in the synovial fluid. Laser examined 353 women for gonococci, and found them 111 times in the urethra, 14 times in the vagina, and 80 times in the cervical canal; *89 cases of a possible 111 revealed the presence of the micro-organism when ocular inspection afforded no evidence of the disease.*

We find the disease existing as an acute, chronic, or general systemic infection. The female urethra is one of the organs most frequently involved. It is shorter than the male urethra, and has its glands less deeply imbedded. This accounts in a measure for the short duration of the acute stage. When the urethra is primarily infected, the disease comes on with an acute, abrupt attack; the inflammation passing over the acute stage in from three to ten days. The woman complains of smarting upon urination. The urethra emits a characteristic discharge, consisting at first of mucus, which, however rapidly changes to muco-purulent, and finally to purulent in character. If the disease is limited to the urethra, the attack results either in resolution or in a chronic gonorrhœa, *which may present no symptoms after the acute stage has passed.* These cases are dangerous, in that exposed individuals are readily contaminated. (Fig. 1.)

When the urethral inflammation is intense, there is apt to be an extension to the mucous membrane of the bladder, resulting in a gonorrhœal cystitis. The degree of bladder inflammation varies in different cases, in most instances requiring persistent treatment over long periods. The micro-organisms exercise their destructive influence upon the lining mucous membrane of the viscus. The same areas are not constantly involved. The lesions may occur around the internal urethral orifice only, or they may involve an area occupying the whole trigone; again, they may be limited to small areas around one or both urethral orifices. When the acute inflammatory stage is severe, the mucous membrane becomes œdematous and is thrown into nu-

merous folds. In long standing chronic cases the muscular walls of the bladder become much thickened, and the capacity

FIG. 1.



Illustrating method of inspecting the external orifices of Skene's ducts. In some cases it is necessary to first dilate the urethra to facilitate the technic.

of the organ is greatly reduced, also the infection becomes of a mixed type, the gonococci, which, in the beginning, were the primary infecting agents, are no longer discoverable. The

bladder inflammation causes the patient much suffering. There is more or less constant pain in the region of the bladder, with vesicle tenesmus; intense pain upon each attempt at urination, and considerable quantities of pus are found in the urine. In the acute stage the temperature range varies from 99° to 104° F., gradually declining as the chronic stage is reached. The disease usually runs a protracted course and is refractory to treatment. Tubercular infection of the bladder is prone to follow a gonorrhœal attack in susceptible subjects. Ascending infection extending along the ureters to the kidneys should be considered possible in every case.

Vulvo-vaginitis is frequently observed in young girls; upon examination the vulva appears red, somewhat swollen and covered with a profuse purulent discharge. Most of these cases are due to gonococcic infection. The young child may be infected from the mother through the process of parturition; the contagion may be conveyed by the use of infected articles, such as sponges, towels, douche tubes, etc. It is also frequently transmitted by soiled closet seats. Epidemics of gonorrhœal vulvo-vaginitis have been reported occurring in children's hospitals. In many cases the primary infection could be traced to a child who had been admitted to the hospital suffering from the disease. In small children, the vulva is primarily infected; but the disease may invade the urethra, vagina and cervix. The vulvo-vaginal glands are not infected as frequently as in the adult. After the acute stage has passed resolution may take place, or the disease become localized in the urethra or within the cervical canal; most often the latter. In the non-specific vulvo-vaginitis, the discharge is thin, serous in character, or of a yellowish-gray color. In this type of the disease frequent washing with soap and water, and the use of mild antiseptic douches, will promptly alleviate the attack and restore the normal appearance of the parts. The contrary is the case in the specific variety, where the parts are red and swollen with a profuse yellowish-green discharge, which upon bacteriologic examination reveals the presence of gonococci. I have seen a number of cases which developed an acute, virulent, vulvo-vaginitis in adults.

Infection of Bartholin's glands is rarely found to be of other than gonorrhœal origin. I have observed a few cases where

bacteriologic examination did not reveal the presence of gonococci. After the recovery of the surrounding tissues, the presence of the disease can still be demonstrated within these glands. It may be many months before inflammatory symptoms appear; but sooner or later abscess develops, requiring surgical treatment. In some cases the gland swells up, becomes tender and hard, remaining in this state for a number of days or weeks, and then undergoes partial resolution; in such cases, however, inflammatory symptoms recur at an early period.

Gonorrhœal infection is the most frequent source of vaginitis. *In many of the cases the absence of gonococci in the vaginal secretions cannot be considered as positive evidence that the inflammation is not of gonorrhœal origin.* An interesting case which recently came to my notice was that of a young woman who had borne one child. She gave a history of acute urethritis, developing into chronic urethritis, which in turn progressed to a cystitis, requiring a long period of treatment, and ultimately culminating in a ureteritis and pyelitis of gonorrhœal origin, a year having elapsed since the occurrence of these conditions. This patient came to me for treatment of a suppurating vulvo-vaginal gland. Upon stripping the urethra, I obtained a drop or two of pus from the external meatus. I examined six slides which had been previously smeared with excretions obtained from the cervix (which was also suspicious looking), and from the infected gland, for evidence of gonococci, the result being negative. The pathology and symptoms of specific vaginitis are quite characteristic. The patient complains of a sensation of heat, burning and itching in the vagina which become exaggerated upon the slightest exertion. Urethral involvement is usually associated with the vaginal infection. Early in the disease a profuse, muco-purulent leucorrhœa is present. The vestibule, labia and hymen become swollen and œdematous. In the virulent cases blood is mixed with the purulent exudate. Upon separating the labia and cleansing the membrane, we find the parts reddened and thickened to a considerable degree. In many instances the mucosa presents a granular appearance. Where the toilet of the parts is neglected, there is a fœtid odor with development of eczematous patches. In some cases the vulva may regain its normal appearance within a week or ten days; in others, the discharge continues many weeks. In the

early stage of the attack, gonococci are present to the exclusion of other bacteria; later they may be entirely absent or associated with other germs.

In women we rarely see the acute manifestations of the disease. The reason of this is that many women are infected by men who have a long-standing, gleet discharge; the disease begins primarily in the cervix as a mild type of infection, owing to the feeble development of the germs, and their consequent inability to produce a high grade inflammation. When infection takes place in the cervical canal, the germs locate within the cervical glands, and remain passive for an indefinite length of time. Tissues thus inhabited may be subjected to a sudden attack of inflammation, due to any cause that brings an exalted blood-supply to the part, and maintaining congestion for any length of time will bring about an acute exacerbation of the disease. The advent of pregnancy is an illustration. The lochia discharge following labor or miscarriage offers a favorable culture medium for the development of the germs and the involvement of new, infected areas. The symptoms produced by gonorrhœa of the cervical canal may be acute, in which case the whole cervix is swollen with eversion of the cervical mucosa at the external os, which exudes a muco-purulent discharge, soon becoming purulent in character. In most instances, however, the cervical development of the disease is subacute or chronic, there being only a hypersecretion of normal cervical mucus. In other cases the discharge will be noticeably streaked with purulent material.

When gonococci invade the endometrium (which often becomes secondarily involved from the cervix), a low grade inflammation is produced, which has its exacerbations with every menstrual period. Such cases have a free, muco-purulent discharge for several days after the menses cease. In case of pregnancy in women thus infected there is a tendency to early abortion. When contamination takes place after conception, the disease is likely to remain dormant in the tissues of the cervical canal until after labor, when there begins a long siege of suffering leading to chronic invalidism, or possibly a fatal termination. Gottschalk, in one of his articles, cites a number of cases observed during pregnancy, where the secretions taken from the cervical canal and prepared upon slides were found teeming with gonococci.

The most frequent cause of purulent inflammation of the Fallopian tubes is gonorrhœa (occurring in 50 per cent. of cases). The gonococci may exist as a pure culture or as a mixed infection; in which case the most important germ is the streptococcus. If the infection is due purely to the gonococcus, the inflammation usually remains confined to the mucous membrane; as a mixed infection, the inflammatory process involves the deeper muscular tissues. When the purulent inflammation is established in the tube, there is found a marked round-celled infiltration, coexisting with hyperæmia of the bloodvessels. The folds of tubal mucosa swell and become adherent, with pus between them. The cilia of the epithelial cells disappear; but the epithelium lining the tube is quite intact, rarely showing denuded areas.

Gonorrhœal infection of an ovary produces the same infiltration of round cells. This takes place in the interstitial tissues with hyperæmia and extravasation. Suppuration occurs early, involving a greater or lesser area of the ovarian tissue, in some cases making an abscess sac of the entire organ.

Gonorrhœal inflammation of the Fallopian tube may remain confined, thereby becoming walled off from the free peritoneal cavity, or there may be slow leakage of infectious material from the fimbria, carrying the germs over the peritoneal surface in close proximity to the tube, setting up a localized peritonitis. This, in turn, is walled off from the general peritoneal cavity by adherent omentum and intestine. Here, the gonococci rapidly cause pus formation, and if the protecting adhesions are not firm, there is secondary leakage of infecting material over new areas. By these stages we often find the whole pelvis filled with an inflammatory mass.

The symptoms following a gonorrhœal inflammation of the tubes, ovaries and pelvic peritoneum are the same as found in any pelvic peritonitis, *i.e.*, pains of a cramp-like character in the lower abdomen, extending deep down into the pelvis; pain upon urination, defecation, and any exertion. The temperature varies from 99.5° to 104° F., with corresponding rise in the pulse. Such attacks have a duration of from three to eight weeks, ending in partial resolution and leaving extensive adhesions. Should there be an abundant pus accumulation, surgical interference is required.

The anus and rectum, especially of women, are prone to gonorrhœal inflammation, if the infecting virus is brought in contact with the tissues. Rectal gonorrhœa is comparatively rare. The disease may be contracted by direct contact, by extension of the disease from the genito-urinary tract, or conveyed by soiled articles of clothing, douche nozzles, etc. The symptoms of such affection are, sensation of heat in the rectum, itching and burning of the anus, dull aching in the sacral region and painful defecation. Local examination of the parts shows redness and swelling of the anus and rectal mucous membrane; there is often a peri-anal eczematous eruption with deposits of pus within the folds of membrane. Examination of such pus microscopically shows the presence of gonococci.

In patients otherwise healthy, the prognosis of rectal gonorrhœa is favorable. In tubercular individuals it should be guarded, as the inflammation is likely to be protracted, ending in tubercular ulceration.

Bacteriologic investigation and experiments have demonstrated the presence of gonococci in the conjunctival sacs, kidneys, heart, lungs, breast, pleura, liver, spleen, brain and spinal cord; also in the synovial fluid of joints, tendon sheaths and the periostia covering bone. Investigations by late observers show that the gonococcus is not infrequently taken up by the blood and lymph streams, in this way affecting almost every organ of the body. It is held by some authorities that gonorrhœa may become a systemic infection. We cannot wonder at these conclusions when we meet symptoms such as general malaise, hyperpyrexia, with corresponding rapidity of the pulse-rate, progressive weakness, fœtid breath, anorexia, a heavily coated tongue, and in fact all the symptoms of a general toxæmia.

Krönig was the first observer to bring forth bacteriologic proof of certain types of puerperal infection produced by gonococci. He reported nine cases of puerperal infection wherein pure cultures of gonococci were found in the lochia. Leopold has reported similar cases. Recently we had a rare case under treatment at the Hahnemann Maternity. A young woman entered the hospital for confinement; nothing unusual was observed until after labor, when she developed a mild type of gonorrhœal, puerperal infection. A week or so later she developed rheumatism, also of gonorrhœal origin. This ran a

course of six weeks before the patient was in a condition to be discharged from the hospital. The child born of this gonorrhœic mother developed an acute articular rheumatism one week after birth. All of the large joints were involved; the left shoulder joint being the most swollen. Dr. Sappington conducted the bacteriologic investigation, and upon tapping the shoulder joint he was able to demonstrate numerous gonococci on slide preparations.

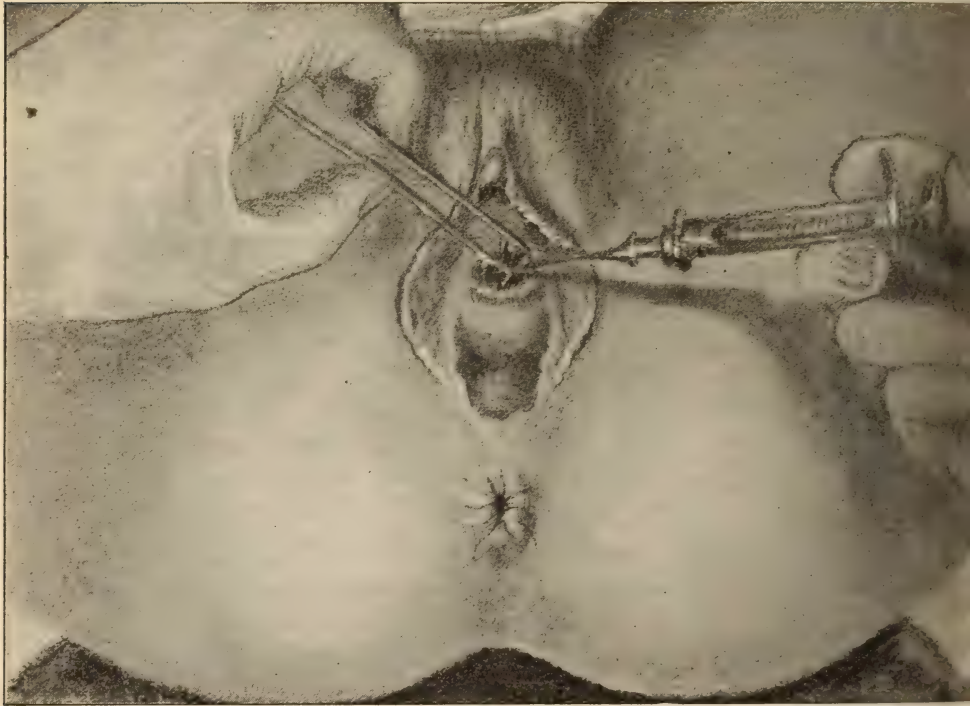
An ordinary attack of acute gonorrhœa may be cured in from two to six weeks. On the other hand, the elimination of a subacute or chronic case is likely to extend over a long period. The experienced genito-urinary specialists consider six months' treatment necessary in chronic cases, and of these, 3 per cent. are rated as incurable. The period of contagiousness does not cease with the eradication of the purulent discharge, the duration of which depends upon the longevity of the gonococci in the tissues. We know that this is quite indefinite, when we consider that the germs may lie dormant many years, and then, as the result of some local stimulus, suddenly spring into activity.

The treatment of acute gonorrhœa should consist of frequent applications of bactericidal agents. The parts must be kept scrupulously clean, which can be facilitated by shaving the pudendum. A vaginal douche of lysol f 5j. to 0-iv. is used every three hours during the day and once during the night; in some cases where the discharge is very tenacious, a skeleton speculum can be used with advantage, in order to separate the mucous membrane of the vagina, and insure the douche reaching every portion of the vaginal tract. After each douching, a strip of gauze, saturated with picrate of silver, one part to eight of glycerin, is placed in the vagina; thus keeping the inflamed surfaces apart. This treatment should be kept up until the acute symptoms have subsided and the discharge is controlled. (Picrate of silver was first used by Dr. Yale, of Philadelphia. It combines the excellent anti-gonococcic effects of silver and picric acid.)

The treatment of chronic gonorrhœa involves many difficulties, and its successful outcome depends upon a clear insight into the morbid tissue changes that have occurred and tend to protract recovery. This is due to the fact that the gonococci

lurk in remote localities where close scrutiny is necessary to detect their presence. In chronic gonorrhœa of the urethra it is found by introducing the index finger into the vagina, and stroking the urethra in an outward direction; a drop or two of pus can thereby be made to appear at the urethral orifice. Upon examining the urethral mucosa with the urethroscope, it will often be found negative until the orifices of Skene's ducts are

FIG. 2.



Showing the manner of treating Skene's glands by injections of anti-gonococcic solutions. Three to five drops are sufficient for each gland.

observed to be inflamed. When the gonococci inhabit Skene's glands, a cure will not be complete until the micro-organisms are destroyed. The technic of the treatment of these parts (Fig. 2) is of the utmost importance. This is accomplished by exposing the orifices of the ducts with a urethral speculum and injecting a few drops of permanganate of potassium solution, gr. xx. to f3j, or picrate of silver in the strength of 1 to 8 parts of glycerin. Daily injection for three or four weeks will usu-

ally eradicate the disease; otherwise it becomes necessary to say open the glands and ducts by incision, and follow with applications of the nitrate of silver stick, thoroughly cauterizing the parts.

For gonorrhœal cystitis, irrigate with two quarts of a rose-colored solution of permanganate of potassium solution at 110° F. (I have found it necessary to irrigate at three or four hour intervals until relief was obtained); then lengthen the time between irrigations, until one daily suffices to keep the patient comfortable. During this stage of the treatment urotropin is of decided value in keeping the urine sterile. In cases where the disease becomes latent in one or both of Bartholin's glands, the safe plan is to remove the gland. If the vaginal mucosa shows evidence of the disease in a chronic form, antiseptic douches are required, and, in addition, daily applications of picrate of silver over the mucous membrane. When the cervix is the seat of gonococcic contamination the canal can be cleansed with H_2O_2 on a cotton-wrapped applicator, following with glycerin. After the parts are thoroughly cleansed, an application of picrate of silver is made to the entire canal. In case the endometrium is involved, it becomes necessary to remove the infected membrane with a sharp curette, making daily applications to the endometrium for five or six days. Salpingitis of gonorrhœal origin requires absolute rest in bed, with hot vaginal douches given every three hours for one day; the following day a tampon saturated with ichthyol, 1 to 10 parts of glycerin should be introduced into the vagina. This treatment is used on alternate days over a period of one or two months. About 30 per cent. of cases are cured by the above treatment; the remaining 70 per cent. require surgical interference. It is necessary to select the cases for which this line of treatment is indicated. Those presenting pus sacs of the tube or ovary should be treated by early removal of the affected organs, as all manner of absorbent treatments are without avail.

The treatment of gonorrhœal rheumatism is along palliative lines, unless pus formations take place, in which case the affected part should be incised and drained. In the rare cases of systemic gonorrhœal infection, weak solutions of a mild silver salt, administered by intravenous injection, may prove

beneficial. This is a treatment which has been used in a few cases, one of which culminated very successfully. Dr. Lawrence, whom you know, and who attended your meeting last year, told me that recently he had a case where that was used directly in the blood, saving, as he believed, the patient's life; but cases of this kind, where there is a systemic involvement and a malignant endocarditis, usually terminate fatally. The results of this treatment will be known when sufficient statistics are accumulated to form a basis of opinion. The internal medical treatment has not been given, as the micro-organisms must be destroyed before a permanent cure can be made. Careful prescribing will alleviate the symptoms and conditions as they arise.

MODERN METHODS OF STUDYING DRUG-ACTION.

BY EDWIN H. WOLCOTT, M.D., ROCHESTER, N. Y.

(Read before the Buffalo Clinical Club, March 7, 1904.)

A RECENT writer in the *HAHNEMANNIAN MONTHLY* tells us that: "Since the dawn of time the administration of the medicaments we call drugs has had an empirical, that is to say, an experimental, basis; and the use of drugs to this day, no matter how refined may be our imaginings to the contrary, is nearly as empirical as when the first herb was employed for therapeutic purposes." This author goes on to say that: "The old woman, with her herb teas, who gives her libations to a sick individual because she has found them serviceable, or has been told by her grandmother that certain plants were of service to certain cases, is more closely related to the modern empiricist with drugs than either the ancient lady or the modern doctor dreams of."

Doubtless empiricism, or experiment, lies at the basis of all knowledge. Science arises when experiments are methodically conducted, and their results so formulated illustrate a general principle. It is in this way that medical science has taken shape—which, we would fain believe, has outgrown the herb-tea stage that deals with individual cases after a hit-or-miss fashion.

There is much for medical science still to accomplish; and, in testing the remedial power of the agents it employs, it has recently taken, in this country, an onward step which will ultimately prove of vast significance. That onward step I propose to discuss in this paper on "Modern Methods of Studying Drug-Action."

You will remember that the American Institute of Homœopathy has ordered that the following statement be published in a conspicuous place in its transactions every year: "A homœopathic physician is one who adds to his knowledge of medicine a special knowledge of homœopathic therapeutics and observes the law of *similia*. *All that pertains to the great field of medical learning is his, by tradition, by inheritance, by right.*"

The last sentence is of especial importance in connection with the theme I am to discuss. Anything of value in the methods and results of the old school of medical practice belongs equally to the new school of medical practice. Let us consider, then:

I. The old school methods of pharmacodynamics, or the study of the action of drugs on living organisms. These methods are twofold (toxic study eliminated):

1. *By clinical observation*, or noting the action of drugs upon the human system when diseased. This method underlies what practitioners of the old school call "Empirical Therapeutics." As, for instance, "the giving of opium in diabetes and of salicylic acid in rheumatism, simply because experience has taught that these drugs often do good when thus administered."

2. *By experiment*, or the comparative study of the action of drugs on the lower animals, which underlies what the old school practitioners call "Rational Therapeutics." As, for instance, the employment of chloral in the convulsions of tetanus. "Since it is expected that chloral, through its sedative effect, will counteract the spinal irritation which is manifesting itself in convulsions."

Both of these methods of testing the efficacy of drugs are open to the homœopath, and both yield him valuable results. When the *single* remedy is administered, he has especial facilities for the use of clinical observation, owing to the fact that the remedies which he employs are simple and not compound, and hence the action of any given remedial agent can be more

definitely noted. The second method—the study of the action of drugs on the lower animals—is of the utmost importance. As has well been said: “We must prove drugs on animals and carry it on till death occur. Otherwise we can only guess at some of the possible action of drugs.” You will be interested to know that this method of testing the effect of drugs has been employed in connection with those methods of studying drug-action, of which I am especially to speak. While medical experts, all over the country, were testing the effects of a single drug on healthy human subjects, “a series of experiments has been conducted with the utmost care and thoroughness to demonstrate the effect of the drug upon animal tissues. This work has been done in the pathological laboratory of the Insane Hospital at Westboro, Mass., by Dr. Solomon C. Fuller, the pathologist of that institution,” and promises the most valuable results.

II. Let us pass now to a method of pharmacodynamics which is distinctively characteristic of the new school of medical practice, viz., experiment with reference to the action of drugs upon the healthful human subject. It was by this method that our homœopathic system of therapeutics was built up; and theoretically this method should yield more valuable and trustworthy results than clinical observation as conducted by either school.

The effects which follow the administration of a drug to a diseased subject may be due to the action of the drug, or may be due to the reaction of the patient's abnormal condition against the drug. Clearly, the more we can do to normalize the conditions of drug-action, the more likely we are to get normal results.

By drug-proving on the healthful human subject, the founders of homœopathy built up our *materia medica*. They were men of keen intellect and boundless enthusiasm; but many of them lacked that careful scientific training which is characteristic of our day, and the modern medical scientist is equipped with instruments and familiar with methods which in the days of the immediate disciples of Hahnemann were absolutely unknown. Hence there has been a growing conviction that the *materia medica* which they bequeathed to us, valuable as it is, required thorough revision.

This idea took tangible form in a presidential address on "The Re-Proving of the Homœopathic Materia Medica from the Standpoint of a Specialist," delivered by Dr. Howard P. Bellows, of Boston, before the American Homœopathic Ophthalmological, Otological and Laryngological Society at Washington, D. C., June 16, 1900.

In this address Dr. Bellows dwelt on the necessity for such re-proving, arising from "the lack of precision, the verbiage and the minor inaccuracies of our present materia medica;" and outlined its objects as the attainment of a nicer "discrimination and accuracy in both the observation and the description of whatever drug effects may be developed; a more perfect elimination of all sources of error in confusing drug effects with constitutional disturbances or temporary derangements of health from other causes; a restoration of the natural sequence or grouping of drug effects as indicated in different organs and tissues of the body; and, as the result of all this, the presentation of a definite, precise, sharply defined statement of the pathogenic sphere and mode of action of each remedy studied."

Dr. Bellows found the promise of success in the movement which he advocated, "not in any superior acumen which we possess over the original provers," but in the fact that we are making habitual use of instruments of precision, of which the founders of homœopathy never dreamed. To quote his own words:

"May we not reasonably expect to secure a degree of accuracy in the observation of drug effects which was impossible in the original provings, when we employ such instruments as the modern ophthalmoscope and microscope, and even the X-ray, in our physical examinations—to say nothing of modern urinary and blood analyses and our many delicate, but reliable, functional tests? What the modern laboratory method of research has done for physiology and pathology in the hands of our colleagues of the old school, we may reasonably expect a similar method to do for us, in our school, in developing the science of therapeutics, which is our peculiar field of medical study."

The remainder of Dr. Bellows' address was devoted to the outlining of a plan for conducting that thorough and minute re-proving of our materia medica which he advocated. The

work, in his opinion, must be done by a body of specialists scientifically trained to work in different directions; since no one man could "properly observe, record, analyze and interpret all the symptoms which may arise throughout the organism in the course of a scientifically conducted proving." Meanwhile, the work of these trained specialists must be organized, directed and supervised by a general practitioner of the largest possible experience; since "only one with wide personal experience in general medicine, and with a large and comprehensive grasp of *materia medica* in its generalities and broad characteristics, can properly assume the direction of a scientific drug-proving; but the corps of trained specialists and of laboratory experts for blood, urinary and possibly bacteriological examinations and physiological tests, are also indispensable to the most complete results."

It is needless to further characterize Dr. Bellows' plan as originally outlined; for it was adopted, in its integrity, by the Ophthalmological, Otological and Laryngological Society; and now has been worked out in detail and practically tested for three years by that society under the intelligent and self-sacrificing supervision of Dr. Bellows himself.

I now pass to a description of the plan as thus tested; and in doing this I shall avail myself not only of Dr. Bellows' published explanation of this plan, but also the typewritten directions furnished to those who were charged with the responsibility of supervising the local provings recently conducted.

III. The recent experiment in drug-proving. In order to subject the method of re-proving which Dr. Bellows suggested to a practical test, the Ophthalmological, Otological and Laryngological Society, with the co-operation of other medical bodies, undertook the conduct of an exhaustive test-proving, with Dr. Bellows in charge as general director. With the aid of his colleagues upon the Boston proving board, Dr. Bellows worked out the details of his plan; formulated minute and definite instructions for those who were to do the actual work of drug-proving; and prepared blanks in which the results of their observation were to be recorded. This involved an immense amount of work and no slight expense. But the work was admirably done; and all the general expense of the three years' experiment was met by an appropriation of \$300 made from its

treasury by the American Institute of Homœopathy, and one of \$50 from the editor of the *Homœopathic Eye, Ear and Throat Journal*. You will be glad to know that "your State society was the first to cast a vote to co-operate in this movement, and added an appropriation of \$200 toward the expenses incurred in this State;" and that "the first individual to contribute to this end was Dr. R. A. Adams, of Rochester, who voluntarily added \$50 to the fund."

Under the general director, by the aid of local committees of the Ophthalmological, Otological and Laryngological Society, organizations were effected in thirteen cities throughout the United States, by which the actual work of drug-proving was to be carried on. At the head of each of these local organizations there was a medical director, who was to have the general supervision of the work. With him was associated a corps of co-operating specialists, who were carefully to note the action of the drug to be tested upon those to whom it was to be administered. Last, but not least, in each locality suitable subjects were to be secured, who were willing, for a pecuniary consideration, to take the drug to be tested as prescribed by the general director, and submit themselves to minute examinations at every stage in the testing process; for tests were to be made, not, as in the infancy of homœopathy, by the examiner on himself, but on a carefully selected subject, in normal physical condition, known as the "prover."

The prover was subjected, before the process of drug-proving began, to a careful preliminary examination. The trained specialists, who were to pass upon the condition of the prover during the testing process, tested in advance the condition of his blood, the character of his physical secretions, his susceptibility to sound, his capacity for sight, etc., as is stated in Dr. Bellows' address before the Homœopathic Medical Society of Western New York.

During the proving process, the prover was subjected to constant supervision. He was required to report every day to the medical director, bring a note-book in which he had minuted any symptoms, physical or mental, which had attracted his attention. The medical director was to subject the prover to a careful examination, just as he would a patient under treatment, and record his own results. If he detected symptoms

which should be noticed by one or more of the co-operating specialists, he sent the prover to him with a written statement of the point that seemed to require attention, *e.g.*, an eruption on the skin would be referred to a competent dermatologist. The prover must, in any event, visit each one of these specialists at stated intervals, and they were to make a careful record, on the blanks furnished by the general director, of symptoms which deserved to be noted. Sometimes, as might have been expected, they noted points of the utmost importance which had escaped the attention of both the prover and the medical director.

An important illustration of this point is found in Dr. Belows' presidential address, page 4, as follows :

"A patient once came to me and, with nice distinction of language, complained of a noise within his ear, especially when moving the jaw, which sounded like 'the bending of a piece of cloth which had been frozen.' In the proving of *eupatorium purpureum* I find recorded among the ear symptoms, 'crackling like burning of birch bark, very much increased upon swallowing anything.' In the case of my patient, simple inspection of the external canal and drum-head, with a suitable speculum and proper illumination, revealed the fact that this symptom was caused by a short length of hair, recently cut by a barber and blown within the meatus, which rested with one end upon a mass of wax on the side of the canal, and rubbed against the surface of the drum-head with the other free end. Was the symptom in the *eupatorium* prover caused by similar means? Inspection would have settled that point at once, and nothing else could except inspection. How about all the symptoms of rustling and snapping and flapping, to say nothing of the crackling noises, which are recorded under eleven other remedies besides *eupatorium*? Perhaps half of these were caused by foreign bodies, exfoliated epithelium or inspissated cerumen, within the canal. In that case, which half?"

The tests were made with a properly assayed drug, the purity and strength of which was a known quantity. The name, or nature, of the drug administered was known only to the medical director who had charge of the proving. At first he administered some inert solution so resembling the tincture, or dilution, to be employed, in dose, taste and color, that the

prover would be unable to discriminate between the blank and the medicine. "As a control-test of the imagination of the prover" (see Dr. Bellows' Rochester address, page 5), it was deemed most desirable that the prover should think that he was taking medicine from the first, and that neither he nor the specialists employed on the case should know when the transition from blank to medicine (or *vice versa*) was made. When medicine was administered, the strength and quantity of the dose was to be determined by the medical director from day to day, in accordance with the susceptibility of the prover to medical action upon the one hand, and the character or severity of the symptoms actually obtained upon the other.

The provings were to go on for at least three weeks (in the case of women until after menstruation had occurred), and then the prover was to be subjected to a final examination by all who had had to do with the case. The results noted by the prover, the medical director and the specialists who had kept watch of the case were then to be summarized by the medical director; and his narrative of the proving, with all the reports on which it was founded, was to be forwarded to the general director at Boston, there to be co-ordinated, with the results of provings made by other experimenters in different parts of the country.

IV. What was done in the direction of drug-proving at Rochester? When announcement was made of the local centres where organization for the re-proving of drugs was deemed desirable, and might reasonably be expected, thirteen cities were named, among which Rochester was conspicuous by its *absence*. I am glad to be able to say that, at the close of three years of successful experimentation in this direction, Rochester is conspicuous by its *presence*. Letters from Dr. Bellows, the general director of the test-proving, assure me that nowhere has more satisfactory work been done in this direction than in our city. That this is due to the self-sacrificing devotion and scientific acumen of the members of the Rochester Proving Club is admitted by all, and I wish personally to express my sincere gratitude for their hearty co-operation in the work which was entrusted to my general supervision. The *personnel* of the club is as follows:

Medical Director, Dr. E. H. Wolcott.

Associate Directors, Dr. H. W. Hoyt and Dr. W. W. Winans (secretary of club).

Treasurer and Special Examiner in Physiological Tests, Dr. L. J. Sanders.

Special Examiner of the Mind and Nervous-System, Dr. P. W. Neefus.

Special Examiner of the Eye, Dr. E. J. Bissell.

Special Examiner of the Ear, Dr. Thomas Parsons.

Special Examiner of Nose and Throat, Dr. H. W. Hoyt.

Special Examiners of the Chest, Drs. C. R. Sumner and W. W. Winans.

Special Examiner of the Genito-Urinary System (males), Dr. N. M. Collins.

Special Examiner of the Genito-Urinary System (females), Dr. M. S. Ricker.

Special Examiner of the Skin, Dr. T. D. Spencer.

Special Examiners, Bacteriological Examinations and Urinalysis, Drs. W. A. Keegan and W. C. Daly.

The Rochester Proving Club has conducted four separate test-provings, on which I reported, somewhat at length, at the annual meeting of the Homœopathic Medical Society of Western New York, held at Rochester in 1903. A full report of what I then said can be found in the *Democrat and Chronicle* of April 18th. I may be permitted to quote the following brief summary of the results then made public:

"In the first proving we obtained a large number of important subjective symptoms, some of which are well known and characteristic of the drug. There were numerous pains all over the body, while the symptoms of throat and chest were especially valuable and important. In the second or supplementary test, made by the same prover, the symptoms were practically the same, only more severe and pronounced, owing to the larger amount of the drug taken.

"In the third case we obtained an accurate and valuable proving upon the eye, and in several other respects the test was quite satisfactory.

"The fourth proving was interesting and instructive, especially as it corroborated the throat and chest symptoms obtained in the first proving, and the eye symptoms of the third proving. Generally speaking, it was the most gratifying of the tests made by the club. With the exception of the last proving, it was remarkable how quickly all symptoms disappeared immediately upon the cessation of the drug."

In this connection, I may quote the following certificate from one of our Rochester provers, which may help to dissipate the impression that permanent injury may be done to the system by such drug-proving as has been described in this paper:

"This is to certify that no injurious effect has resulted through the proving of the drugs which has been carried on under your supervision. The effects of the drug were only temporary, and ceased a few days after the drug had been discontinued."

V. The results thus far accomplished. The results thus far attained are set forth in a general way in an article by Dr. Bellows on, "The Future of Drug-Proving in the Light of the Test-Proving of the Ophthalmological, Otological and Laryngological Society," in the *North American Journal of Homœopathy* for August, 1903.

Three years have been occupied in this work. In eleven different cities proving boards, organized for the express purpose, have completed their task and forwarded to Boston the record of tests made by the administration of one and the same drug to fifty-one persons, both male and female.

A detailed statement of the results attained will be embodied in a volume now in process of preparation by Dr. Bellows, which it was hoped might be given to the public in time for review in this article. It can only be said, however, that those results will be found to be of the utmost importance. With reference to one of the most important drugs in our materia medica, we shall have a clear, precise and definite statement of the symptoms which follow its exhibition in the case of more than fifty different persons, with definite notes of the conditions under which the test was made in each individual case, including such minute details as the registration of the thermometer, the barometric pressure and the relative humidity of each day during which a prover was subjected to the influence of the drug.

VI. The advantages of the system. There are obvious advantages which will occur to one who accepts the law of similia from a materia medica revised and rewritten after this fashion. But there are some which are not so obvious; and to these I would briefly call your attention, presuming, as Dr. Bellows says in his presidential address, page 8, that while the

work of re-proving must be done by city physicians, since only in cities can the essential group of special examiners be found, the results attained are of equal value to the country practitioner, who, Dr. Bellows naively suggests, should share in the expense.

1. On the *positive* benefits of such thorough re-proving of our materia medica a recent writer in the HAHNEMANNIAN MONTHLY sheds light when he says: "Many therapeutic pearls without price have been lost to humanity through carelessness in observation and through lack of ability to properly observe the effects of medication." Such a re-proving as we have undertaken would doubtless suggest the use of certain medical agents in cases for which we have never yet thought them available.

2. On the *negative* therapeutic values of drug-proving Dr. Bellows made a striking statement in his Rochester address, page 6:

"This mode of procedure through the routine examination by the special examiners gives a prominence and importance, which it has never before possessed, to what may be called the *negative* side of drug-proving. We have hitherto assumed, in studying the recorded action of any drug, that many other positive effects might be possible besides those already observed, and that the omission of any particular symptom, which we may almost expect to find present in association with those recorded, may be due to carelessness or lack of opportunity to observe—that it might even have been present, but was not mentioned. We lay some weight upon such absence of the symptoms in choosing the remedy to apply to a given case, but we do not attach the same importance to the absence that we do to the presence of related symptoms. By this method, however, the authoritative statement, after examination, that a certain symptom in a related group is absent, makes this negative observation just as important as the positive in determining our choice of remedies for therapeutical application, and greatly aids in their differentiation. It makes the whole picture of the drug-pathogenesis sharper and stronger in its authoritative lines than ever before, the shadows, as well as the lights, assuming their proper relative position and importance."

3. In his more recent paper, on "The Future of Drug-

Proving," page 14, he calls our attention to a fact which is by no means unimportant in its bearing on the work which we have undertaken. He says:

"Some of our polycrests owe their medicinal properties to more than one alkaloid which they contain. In our day such polycrests have become as much medicinal compounds as some of the mixtures which Hahnemann inveighed against when striving for purity and simplicity in our *materia medica*. To be sure, these remedies are compounded in Nature's laboratory, and not in that of the chemist; but the chemist's laboratory now resolves for us these compounds of Nature into their component parts, if we wish to employ them in their simplicity. Probably this question can only be settled by proving a polycrest in our modern fashion, then proving each of its constituent alkaloidal elements in similar manner, and making an exhaustive study and comparison of the results thus obtained, with a view to their practical application in the practice of medicine."

4. The benefit of this system of re-proving in opening to the medical practitioner a broader field than that of "the trivial round, the common task" of his daily duties, and entering upon the work of original investigation, has already been noted in some remarks of mine before the Homœopathic Medical Society of Western New York.

5. And growing out of that original investigation, which we are conducting, is the consideration of its possible influence on practitioners of the old school, respecting which Dr. Bellows thus speaks in his presidential address, page 12:

"We have convinced ourselves of the truth of our guiding therapeutic principle by the ability which we possess to cure the sick by the administration of drugs chosen in accordance with even the imperfect indications of our present *materia medica*. We have convinced our patients of the truth of this principle by the beneficial results which they have observed in their own families and by their own individual experiences when sick. We have failed, however, to convince our fellow practitioners of different therapeutic faith, and of no therapeutic belief, that we possess any therapeutical principle which is worthy the name, or that our *materia medica* is more than a conglomeration of fortuitous symptoms through which no ade-

quate guiding lines are discernible. Hitherto we have spoken to these colleagues of the older school chiefly with the voice of assertion. Let us now speak to them with the clear, dispassionate voice of science. Let us say to them, 'These are the effects of drugs upon the healthy human organism, observed and recorded in accordance with modern laboratory methods and tested by modern instruments of precision. Note the relation of these drug effects to the curative action of these same drugs when administered to the sick in attenuated form. Give heed to this paralellism, in the spirit of science, and tell us, is this a vagary of the imagination, or is it a central truth of a modern science of therapeutics, and worthy of full recognition and acceptance throughout the whole medical world?' "

If, as some seem inclined to believe, there is to be an ultimate amalgamation of the old and the new schools of medical practice—if the lion and the lamb are to lie down together—let us take every precaution, gentlemen, to make sure that the right one lies inside.

VII. The future of drug-proving. In his recent article, to which reference has already been made, Dr. Bellows deduced from our three years' experience in drug-proving the following conclusions, in which I heartily concur:

1. That the examining boards of specialists may be diminished in size.
2. That little or no dependence can be placed on voluntary provers.
3. That the blanks furnished to special examiners can be simplified and condensed.
4. That the narrations of individual provers, all over the country, should be compiled, from the reports submitted, by one competent editor.

All this affects the mere detail of the system; but the next conclusion at which Dr. Bellows arrives is startling. It is:

5. That to continue the work, as it has been hitherto conducted, will be positively futile. To quote his own words, pages 6 and 7:

"It may occasion surprise when I state my individual judgment, founded upon three years of experience as the general director of this movement, that the further pursuit of the plan which we have followed, so far as it relates to the systematic

re-proving of our *materia medica*, whether this plan be continued under the symptoms of the Ophthalmological, Otological and Laryngological Society, or under that of this American Institute, is impracticable and, in the end, will prove utterly futile. Do not think me disheartened or discouraged. While this adverse opinion is founded upon my personal experience, I am to-day more sanguine in regard to the ultimate success of this movement than when I entered upon the work three years ago. The reason why I do not advocate the continued following of the plan for proving by means of the local boards as now constituted is because, in its practical application, this plan has been found to bear too heavily upon the busy practitioner. Any man who is competent to act as an examiner in accordance with this scheme is a man who has thus qualified himself by long experience in medical practice, and such men are, in a measure, no longer masters of their time. We have, in many instances, secured the regular attendance of the provers upon the examiner, but to secure the regular presence of the examiner in his office at the time of the prover's call, or for him to so arrange his time and engagements that he can promptly examine the prover upon his arrival, is a vastly more difficult problem, as our experiment has conclusively shown. Let us give all due credit to these many physicians, mostly specialists, who have succeeded in carrying through fifty-one provings in order to demonstrate how such work should be done. Let us give due credit to the eleven local directors who have shouldered through their part of the task, standing between provers and examiners, and have grappled afterwards with the examiners' records and their own, through weeks of broken time, in the effort to bring the various parts into proper relation with each other, and present each proving as a concrete unit. But, after giving all due credit and making all just allowance, the facts remain that, with the very best efforts which could be put forth, it has required a year and a half of valuable time, after everything was in perfect readiness, to bring the work upon one drug by fifty-one provers, to its present stage, and that, even now, many records of examinations are either wholly wanting or are far from satisfactory. This is a loss of time and a waste of material, which surely cannot be contemplated for the future. Re-proving our *materia medica* at this rate is sim-

ply working for posterity and scarcely for ourselves at all. It is not probable that continued experience with our present plan will sufficiently correct its faults in this regard, and therefore I advocate its abandonment in favor of some modified plan which bears less heavily upon special examiners and local directors."

Dr. Bellows does not propose, however, to abandon the work upon which we have entered, but to put it on a more substantial systematic and enduring basis. To this end he advocates the establishment of an Institute of Drug-Proving. "What we need now," he says, "and must have, sooner or later, if this work of re-proving our *materia medica* is to go on to a successful completion, is an Institute of Drug-Proving." The fact that it has taken the homœopathic profession of the United States, working under the present methods, three years or more to prove a single remedy, seems to me a demonstration of the soundness of Dr. Bellows' position. Nor does the plan of such an institution, as he outlines it, seem at all chimerical. He said (page 9 of his recent article):

"It is not at all necessary that a fine building be erected for the purpose, although the cause is worthy of even that. A medium-sized private house, upon some quiet and unfashionable side street, could be rented or purchased and would serve the purpose well, provided it be conveniently accessible by main lines of city travel, and be near some large hospital or dispensary or medical college which constitutes a medical centre. It goes without saying that the home of such an institution should be in one of our larger cities, where there is a medical college of our school and large public or medical libraries available for research, and a city in which the homœopathic profession is strongly represented. The house which is chosen for the use of the institute should be refitted so as to contain a large library or working room, a small and private directors' room, a waiting room for provers or visitors, three or four examining rooms fitted with all instruments and appliances necessary for the convenient use of the various special examiners, so that three or four can be working at the same time, a well equipped laboratory for the analyst and bacteriologist, and quarters for a janitor. The working room should contain all the time-saving appliances—a telephone, typewriter, mimeograph, letter-press,

filing cabinets, a large safe for the protection of manuscripts and records, and an extensive reference library."

In regard to the personal equipment of such an institute as he advocates, Dr. Bellows (page 11) makes the following statement:

"In charge of the entire institution and its work should be a general director. At the house, in constant attendance during working hours, the director should have an efficient office assistant who understands stenography and typewriting, and can do proofreading, and have a knowledge and control of many small details which commonly need not occupy a director's time and thought. The whole building should be in charge of a janitor, and this is the entire force whose daily attendance is necessary. . . .

"The remainder of the personnel of the institute consists of the special examiners and the analysts, in accordance with the working scheme which we have just tested and found worthy of adoption, with slight modifications. These special examiners and analysts should be in regular routine attendance at stated hours or stated days during the period of active work upon each drug—the whole class of provers being present at the institute for examination at the specified times, following each other from room to room until the observations of the day are finished, the provers thus rounding up for the examiners at the institute instead of scattering over the city to seek them at their several offices. The examiners, on their part, upon these days make a professional call at the institute by appointment, where their examining room and special apparatus are in readiness for them, and dispatch the work promptly without any interference with private practice or confliction with private patients. Each examiner and analyst should have an understudy, a younger man who can be called upon by the examiner or from the office to do the required work when unavoidable detention occurs. In this way, regularity in the observations can be insured—the lack of this regularity being the fault which chiefly marred our test-proving and robbed it of its best results. All these physicians who make up the personnel of the institute for drug-proving, as well as the provers who are employed in the work, should, in my judgment, receive payment for their services, and here lies the chief expense of such an in-

stitution. The director must give practically his whole time and his whole strength to the undertaking. To be fitted for the position he must either be a general practitioner of large experience, or, if a specialist, he must have had ample experience in general medicine previous to his special work."

Dr. Bellows submits no estimate of the amount that would be necessary to endow such an institution as he advocates. Possibly it would require a half million of dollars to provide for the continuance of the work of re-proving our materia medica in the way which he has so admirably outlined; but that fact does not in the least appall him. At the close of the article from which I have so liberally quoted, he says:

"In projecting a scheme of this magnitude, and in working for an end so inspiring and of such momentous importance, why should not our first aim, at least, be high? Why should we not set clearly before the mind the ideal course to pursue, and follow it if we can? When we know that our aim must be lowered, it will be time to devise substitute plans which we may regard as temporary expedients. The coming year is one for deliberation, for no final action can well be taken until the results of our test-proving are published and thrown open to scrutiny and criticism. During the year let us not think any aim too high, which most surely and directly leads to the accomplishment of our object. And, after all, is it presumptuous? Is it merely visionary? On the contrary, is it not both reasonable and in conformity with experience in other lines of research, in these days when the government itself is conducting costly experiments to prove the effects of food adulterants upon the healthy human system—in these days of the Carnegie Institution and the Rockefeller Institution for medical research, with their princely endowments—is it not both reasonable and in conformity with the experience of other earnest workers in the field of science to believe that some large-hearted and broad-minded man, blessed with ample means at his command, and appreciating the grand opportunity here presented for the advancement of medical science, the promotion of medical unity and the betterment of humanity, through more accurate and dependable therapeutical resources, will come forward, sooner or later, before many years have passed, and will endow an Institute for Drug-Prov-

ing, which will place upon a permanent basis and establish in its true position the most reliable and the most beneficent means of healing the sick which rests in the hands of the medical profession—the homœopathic materia medica.”

It brings what I am saying with reference to the future of drug-proving to a fitting conclusion, if I note the fact that Dr. Bellows' paper on this subject was read before the Bureau of Meteria Medica of the American Institute; and that, upon the recommendation of the bureau before which his paper was read, the American Institute appointed a committee of five to report, at its next annual meeting “upon the feasibility of establishing an Institute of Drug-Proving in accordance with the plan outlined by Dr. Bellows, or any other plan which may be presented.”

I esteem it a fortunate omen that Dr. Bellows' Institute is thus to be treated homœopathically.

The names of the committee are as follows: J. B. Gregg Curtis, M.D., Washington, D. C.; George Royal, M.D., Des Moines, Iowa; Charles Mohr, M.D., Philadelphia, Pa.; Edwin H. Wolcott, M.D., Rochester, N.Y.; Benjamin F. Bailey, M.D., Lincoln, Neb.

HYPERTROPHY OF THE PROSTATE GLAND.

BY M. O. TERRY, M.D., UTICA, N. Y.

(Presented to the Homœopathic Medical Society of the State of New York, at its Annual Meeting in Albany, N. Y., February 9th and 10th.)

A GENERAL consideration of the above subject includes the ætiological factor, the medical and surgical treatment, and the acute and chronic stages of this difficulty. In this article I shall consider simply the chronic form, that which is peculiar to advanced age. It means that a slow process of inactivity or retrograde metamorphosis has been going on, and that the normal activity of this gland has been suspended, and it is not so much that the gland is hypertrophied as that it impedes or interferes with the natural outlet of the kidneys.

It is conceded that no remedy or method of living has been found that will interrupt the natural progress of senility. With advanced age there are quite naturally disintegrating in-

fluences, as in machines made by man, which are continually at work tending to destroy the human machine. This gland is one of the cogs which demands our attention at this time.

Is there anything that we can do to forestall the obstructive influences of hypertrophy? Are there any remedial agents or any physiological instruction that we can give persons in advanced life that will prevent the disagreeable, annoying and even dangerous difficulties and complications incident to the obstruction at the neck of the bladder?

In youth the tissues are mellow, the bones are soft and cartilaginous. As time goes on the cartilaginous tissues have been firmly converted into bony structures. In advanced age this organic condition of the tissues has so far changed that we find an excess of the inorganic which causes the bones to become brittle. A proper diet and the care of the body has much to do with the brittleness of the tissues. The bones can be softened by an acid diet, which includes various fruits. Therefore, the physiological method of softening bony or hard structures and to keep the tissues mellow would naturally be a vegetable and fruit diet. This, together with liberal quantities of pure, soft water, to which lemon juice and vichy may be added, it is thought would have much to do with preventing the catarrhal condition of the bladder and of the kidneys. An improper diet, such as the too frequent use of alcohol in its various forms, coffee, tea, and that which might be classed as a too hearty kind of food for the individual's vocation, with insufficient exercise, would tend to produce obstructions by a process of passivity, of which this would be a sample. I believe that the irrigation of the stomach by a glass of either hot or cold water, whichever is the most agreeable, is the proper beginning of the day for a correct physiological life. It acts as a stimulant for the stomach, washes away the mucus and places the gastric surfaces in the best condition for performing the duties for which they were intended. It is not my intention, therefore, to delve deeply into the ætiological factor of hypertrophy of the prostate gland, but rather to generalize, as I have already done, and simply recommend to those who are particularly interested in the subject the elaborate works already written upon it by Lydston and others.

It is, perhaps, within the memory of many who are present

that, in 1883, I read an article "On the Value of Chloride of Ammonia in Prostatic Disease," which was published in the eighteenth volume of the *Transactions of the Homœopathic Medical Society* of this State. In that paper I gave references to the action of this remedy on glandular tissues in general. The paper was supported by three clinical cases. The first was an acute prostatitis of three weeks' duration which was rapidly cured, the patient being 28 years of age. The second was chronic hypertrophy, patient 67 years of age, who was also cured. The third patient, age 36, was one of many cases of weeks' duration who was fully cured. Following this paper a clinical report was made by Drs. Hill, Laird and myself, in which seven additional cases were presented, the ages of the cases ranging from 50 to 70 years, varying in their chronicity. To those who are interested in this subject and not prepared to operate, I would advise them to read this report, and, furthermore, the article subsequently written by Dr. Laird on "Ammonium Muriaticum," published in the nineteenth volume of the *Transactions of the Homœopathic Medical Society* of this State for 1884.

The chloride of ammonia is prescribed in from 5- to 10-grain doses, three times a day, half an hour before meals. This is to be given well diluted in water. As it is usual to find catarrhal conditions of the bladder in these cases I have often used Bethesda water, or a spring water having a similar soothing effect. This is the only remedy I have ever found which would influence, reduce and relieve symptoms incident to prostate hypertrophy. This treatment is to be continued, according to the patient's condition, from two weeks to three months.

One more reference and I am through. I believe that the medicated galvanic current, if properly applied and persevered with, will relieve a large per cent. of these cases. It does not seem necessary to go into details in regard to the method of application of the galvanic current, for those familiar with its use will readily understand the manner of procedure. If I were to apply it, however, the water would be medicated with chloride of ammonia and iodine, the positive pole being over the sacrum, the negative over the perinæum, or the positive pole over the perinæum and the negative in the rectum. I believe from twenty to forty milliampères would be of sufficient

strength, and that a ten to twelve minutes seance the proper time for each treatment. Another method of reduction would be to place the negative pole in the urethra from three to five minutes, using not more than ten milliampères.

In closing, permit me to state that I have endeavored to point out methods for relieving symptoms incident to this very distressing difficulty without the aid of the knife, but will gladly surrender my place to the votaries of that kind of treatment, as I am well aware that there are cases which need the most expert hand of the best equipped and clear headed surgeon.

PUDENDAL HÆMATOCELE.

BY JAMES C. WOOD, M.D., CLEVELAND, OHIO.

Miss J., aged 19, was thrown violently from a toboggan sled against a fence. She did not realize at the time that she was severely injured and remained on her feet for an hour or more; then she discovered a swelling the size of a small orange in the left labium. A physician was called and endeavored by means of the ice-bag and posture to limit the effusion of blood. However, the swelling continued, and when I saw her on the morning of January 24th, there was a tumor the size of a double fist, which was as blue as indigo. Suffering was intense, and it was impossible to empty the bladder because of the pressure. Under an anæsthetic the mass was incised, the blood clot turned out, and the bleeding points in the apex of the wound secured with catgut. The wound was then closed except at its lower extremity, which was left open for drainage. The resulting cavity was closely packed with gauze, as well as the vagina, so that counter-pressure could be applied from without should bleeding recur. The skin area was so nearly devitalized, because of the excessive pressure, that warm antiseptic compresses were kept on instead of cold. The patient made an uninterrupted convalescence, and will, I think, have no subsequent trouble.

By the term "pudental hæmatocele" is meant an hæmatic tumor, formed by the rupture of the bulb of the vestibule. It is met with much oftener in obstetrical, than in gynecological, practice. The largest pudental hæmatocele I have ever seen

was the result of falling astride a wagon wheel, the patient being very large and fleshy. That the condition is not a common one is proved by the fact that in an active gynæcological practice of twenty-five years, I have never met with more than a half-dozen cases. Traumatism, such as kicks, falls, incisions, etc., is the usual cause. When both the skin and the bulb of the vestibule are ruptured, an alarming, and even fatal, hæmorrhage takes place externally. If the skin is not ruptured the blood is retained with a consequent hæmatocele. The tumor varies in size from that of a walnut to a foetal head; it is sudden in origin, though its full size may be attained gradually. The course and termination are variable, depending upon the size of the tumor, and in no small degree upon the treatment resorted to. If the effusion is small it usually becomes entirely absorbed, or may remain almost indefinitely in the tissues as an encysted mass. Suppuration is particularly liable to follow parturition, in which event there is always great danger, because of the exaggerated size of the veins and lymphatics at the time of septic infection. A secondary hæmorrhage may ensue from rupture of the skin.

In the treatment of pudendal hæmatocele, an attempt should be made (1) to limit the effusion by rest, cold applications, and the use of hamamelis, both externally and internally; (2) if the effusion increases, in spite of the foregoing, the clot should be turned out by incision, and the resulting cavity treated as in the case recorded above. Should the physician not be called until suppuration is established, the pus should be at once evacuated by free incision and the abscess cavity thoroughly washed and drained. There are certain other lesions of the vulva which may be confounded with hæmatocele, hence the importance of careful differential diagnosis. These are, abscesses of the vulva, pudendal hernia, hydrocele, cysts of the Bartholinian glands, œdema of the labia majora and nymphæ, and neoplasms of the vulva. I know of a prominent physician who once thrust a knife into a supposed abscess of the vulva, which proved to be a hernia of the intestines, and as a result the patient died. So important is it to differentiate between these several conditions that I herewith append a differentiating table, taken from my text-book.*

* 2d edition, p. 367.

NAME.	ONSET.	CAUSES.	SYMPTOMS.
Abscess.	Acute.	Inflammation, traumatism, gonorrhœa, etc.	Pain, chilliness, fever, redness, swelling, etc.
Hæmatocele.	Sudden.	Parturition and traumatism.	Sudden appearance of tumor, at first painless; <i>discoloration</i> ; resolution or secondary symptoms of suppuration.
Hernia.	Sudden or insidious.	May be congenital; lifting, straining, kicks, blows, etc.	Impulse on coughing; resonance; absence of inflammatory signs; effects of taxis; if sac contains ovary—great sensitiveness and symptoms all aggravated at menstrual period.
Hydrocele.	Gradual.	Same as hernia; effusion of blood into canal of Nuck. (<i>Lammert, Gottschalk.</i>)	Absence of signs of hernia; translucency; evacuation by exploring needle and collapse of tumor.
Cysts of the Bartholinian glands.	Gradual.	Any source of vulvar irritation.	Absence of inflammatory symptoms and signs of pus; absence of hernial signs; location of tumor (backward); exploring needle (the fluid is much more viscid than that of hydrocele).
Edema of labia majora and nymphæ.	Gradual.	<i>Systemic.</i> —Diseases of heart, liver or kidneys. Pressure resulting from pregnancy or tumors.	<i>General.</i> —Symptoms of constitutional lesion and general anasarca; symmetry of swelling; shining surface, which pits upon pressure; <i>absence</i> of inflammation.
Neoplasms of the vulva.	Always gradual.	Often no definite cause traceable.	The only neoplasm liable to be confounded with the conditions included in this table is a small, non-malignant growth (fibroma). The diagnosis can usually be made by exclusion as well as by the physical character of the growth. It is hard, painless and unyielding. In all cases of doubt a fine, aseptic, exploring needle may be used with comparative impunity.

DESQUAMATION OF THE SKIN IN TYPHOID FEVER.—(Reisemann.)—The varieties may be distinguished: 1. That confined to the rose spots. In some cases each spot has a tiny vesicle on its summit, which quickly passes into a thin crust, scale-like in character. 2. That appearing following the sudamina. This is confined to the areas that have been the seat of sudaminal inflammation and eruption. The desquamation is usually furfuraceous, but at times scaly. It occurs on the trunks and proximal parts of the limbs, and never seen on the distal extremities or on the face. It appears in the bathed and in the unbathed. 3. In some instances there is in typhoid fever an extensive, almost universal, desquamation, which seems to be independent of the sudamina, and in all probability is a trophic change similar to the shedding of the hair. It affects the trunk and proximal parts of limbs, and rarely the face and distal extremities. Usually the extent of the desquamation is an index to the severity of fever.—*The American Journal of the Medical Sciences*, January, 1904.

OXIDE OF ZINC IN INFANTILE DIARRHŒA.

BY THE LATE R. J. McCLATCHEY, M.D.

THE following posthumous paper was recently discovered among some manuscripts in possession of the undersigned, and by direction of the Hahnemann Club is offered to the HAHNEMANNIAN MONTHLY, with a special request for its publication. It was read before the Club at its second meeting, November 20, 1873, and was the first essay discussed by that organization. In these latter days it still possesses intrinsic scientific value aside from its historic interest.

PEMBERTON DUDLEY.

Dr. E. Mackey, of the Children's Hospital, Birmingham, speaks very highly of the oxide of zinc in infantile diarrhœa. He has used the drug with good success, especially in cases where the diarrhœa was complicated with whooping-cough.

Bell does not mention zincum in any preparation as a remedy for diarrhœa, in his work on *Diarrhœa*, etc., and in Dunham's *Bœnninghausen on Whooping-Cough*, zincum acidatum is not mentioned as a remedy for that disease. Indeed, our provings of the drug are very meagre, and neither in the *Hygea*, XIV., where the original record is to be found, nor in the symptoms recorded in Hempel's *Jahr's Symptomen Codex*, do we see anything like a good picture of either diarrhœa or whooping-cough. Nevertheless, we believe that Dr. Mackey's success with this remedy was due to its homœopathicity to the cases in which it was successfully administered—perhaps homœopathic to the *genius epidemicus* of the diarrhœa then prevailing in the institution of which he had charge.

We turn, therefore, to other sources for information, and although the literature of zincum oxidation, so far as its effects are concerned, is by no means extensive, still enough can be gathered to give a satisfactory explanation of the action of the drug. In the *North American Journal of Homœopathy*, vol. 1, pp. 126, 127, are recorded some cases of poisoning by the oxide of zinc. In the one case, a laborer who had been engaged in barreling oxide of zinc and repairing casks in which it had been, and who worked for five days in an atmosphere impregnated with this substance in fine powder, became affected by it. The first symptoms experienced were, colic and repug-

nance to food, with a constant clammy taste in the mouth, which even wine and brandy did not remove. After ten days of this employment he was seized with vomiting, severe colic and constipation, which persisted and increased in intensity. The vomiting was bilious; all food was rejected immediately after swallowing it; the tongue was white; there was no fever, but there was sleeplessness. Six persons who were subjected constantly to the action of dust containing oxide of zinc had, among other symptoms, colic and diarrhœa. In one, the colic and diarrhœa were the only symptoms observed; in another, the colic was accompanied with nausea, tenesmus and obstinate constipation. These symptoms subsided readily without treatment upon the abandonment of the occupation which occasioned the exposure.

The provings recorded in the *Hygea* give the following symptoms:

Nausea with sourish taste in the mouth. *Sickness and nausea.* Sudden vomiting of children. *Bilious vomiting.* Vomiting and diarrhœa. Tearing below the umbilicus from one side to the other. Distension of the abdomen. Rumbling. Liquid stools with tenesmus and pinching in the abdomen. *Bilious stools,* followed by great relief of all the symptoms. *Remarkable sinking of strength,* also with internal sick feeling.

With these symptoms before us, we can readily understand why the oxide of zinc should prove efficacious in infantile diarrhœa. Dr. Mackey, with the usual indefiniteness of an old school practitioner, does not particularize the symptoms of the cases he treated. Had he done so, no doubt the symptoms of the cases cured with the zinc would have corresponded with the symptoms above enumerated.

The connection between zincum oxidation and whooping-cough yet remains to be made out by further provings of the drug. Bönninghausen gives a high place to zincum metallicum in the treatment of whooping-cough, and enumerates with the "concomitant" symptoms a variety of stomach and bowel disturbances.

SPASTIC PARAPLEGIA.

BY JOHN E. WILSON, M.D., NEW YORK.

(Read before the New York State Homœopathic Medical Society.)

IN 1876 Erb announced the discovery of a fixed complex of symptoms to which he gave the name of Spastic Paraplegia, claiming that it was an entity and existed in a pure form unmixed with other symptoms. He gave as its cardinal symptoms:

1. Weakness.
 2. Spasticity.
 3. Exaggerated reflexes (deep).
- To which has since been added
4. Babinski's reflex.

The disease as he described it is not very common and its existence has been questioned, but within the last few months he has reaffirmed its existence as a definite form of disease. Commonly, people speak of this and many like conditions as "creeping paralysis," and as such our patients come to us after suffering for months or sometimes for two or three years. The point which I wish to emphasize in this paper is that it is generally a *residium* of a previous disease or one of the stages of inception of some other chronic spinal degeneration. This distinction is a very necessary one, for a pure spastic paraplegia may exist for a very long period without endangering life, although the person suffering from it is exposed to a varying degree of disability. It is markedly incurable, but holding the opinion of the lesion that we should, we can assure the person of the impossibility of cure, of the dubious prospect of relief, but of a relative comfort for a long period.

But if this condition which we find is only a stage in some other disease, the questions of prognosis and treatment must be considered in a very different light. If we can conceive of it as one stage of an acute intoxication or infection, we have the right to believe that if the cause is removed, or the bodily strength gains power of resistance and a tendency toward restitution to the normal, the person after a reasonable period of illness will make a perfect or measurably perfect recovery.

On the other hand, if this is but a stage of development of some of the more widespread nervous degenerations which have in their symptomatology some tendencies which directly attack the mechanism of existence, we cannot only not promise them cure, but we cannot promise them the relative immunity from death which spastic paraplegia will allow us to present, but we must, on the contrary, express to some proper person our opinion that the patient's condition cannot reasonably be expected to persist for a long period, but that the patient will develop symptoms relating to other parts of the nervous mechanism and displayed in other parts of the body, and that the probability of a prolongation of life for more than two or three years is extremely doubtful.

In practice it is found most commonly that this condition represents an early stage of a multiple sclerosis, which is a disease that is particularly prone in its spinal form to slow development and marked stages of remission. When it is a *residuum* of some other symptom complex it will most often be some one of the mingled forms of meningitis, or myelitis, or meningo-myelitis. I wish to quote as instances two cases which have come under my notice, the visible bodily signs of which at the first visit would have proclaimed them spastic paraplegias, in which case the prognosis would have been bad for recovery and doubtful as to duration of life. When the history was coupled with the results of the examination, the cases were instantly taken out of the category of spastic paraplegia, and it could be stated with a large degree of probability that one would terminate in eventual recovery, while the other was doomed to an early death.

The value of a correct diagnosis of the real condition resides in the fact that it enables us to give a fairly certain prognosis.

I.

The first case is that of a young lady 20 years of age, of good heredity, good personal history, strong physique. The only bad points were that she had been brilliant intellectually and a favorite socially, and therefore had been exposed to inordinate strain during the period of growth and development. Previous to the inception of the trouble she had been exposed to the effect of cold and damp, and, closely following this, extreme

over-exertion in the line of amusement, but she had no history of a recent infectious disease or of a powerful intoxication from food or poison.

On August 10, 1903, during her menstruation, she noticed prickling and tingling feelings like an electric current down both legs to the heels, and during the next three weeks her vision began to fail, having diplopia as a prominent symptom. On the 31st of the same month she was obliged to remain in bed, as she had so completely lost the sense of feeling in her foot that she was uncertain of her ability to stand and walk, and by the evening of that day she lost the sense of temperature (cold and heat). Three days afterward her limbs became acutely sensitive. This hyperæsthesia or over-sensitiveness lasted but a few days, and was followed by a numbness which extended to the waist. Ten or twelve days after this—that is, the 16th of September—she was able to get out from the bed, but had more or less pains in her arms and legs, which continued for two weeks. She had retention of urine, and her vision was blurred. Now—that is, the 16th or 18th of September—she could hobble about, and even was able with assistance to get into a carriage and go out driving.

Throughout the next month—that is, October—she had variable degrees of pain in her legs, and toward the end of the month her arms commenced to feel numb, as if asleep. Her vision improved. Now the numbness began to leave her legs, but her walking became more and more difficult and the right foot dragged.

I saw her on November 9th, when she displayed the following symptoms: She could appreciate all varieties of sensation over her whole body, and the skin reflexes were practically normal. She had some pains in the pectoral muscles. She had no palsies of the cranial nerve. The ophthalmoscope showed no eye lesions. Her vision was normal, with the exception of slight visual defects which normally would have to be corrected by glasses. She had no atrophy of any muscles. The deep reflexes, knee-jerk and ankle clonus were exaggerated in both limbs—the right more than the left. She had a marked Babinski; she had some spasticity of the bladder, and she had a nearly complete motor paralysis of the legs, and the arms were weakened. Wrist-jerk, triceps, biceps-jerk were all exaggerated.

She had, therefore, practically a picture of a spastic paraplegia: She had weakness, spasticity, exaggerated deep reflexes, and a marked Babinski. The amount of pain which she had may be found here and there in almost any complaint, but her history showed that she had had some form of nervous trouble which involved sensation to a moderate degree—which has no part in the pathogenesis of Erb's spastic paraplegia. (It should be stated that at a later date I was told that in the early part of her attack she had intense pains at various points, in some places simulating girdle pains.)

The diagnosis seemed clear that it was a case of meningo-myelitis, in which cold and exposure had so reduced her resisting power that some latent infection or intoxication had set up a low grade of inflammation. Owing to the pain symptoms in the pectoral muscles and the history of previous pains in the arms, and the motor weakness, it seemed probable that the myelitis in the cervical region was not at its worst, and therefore the prognosis was made that while recovery was probable the arms would in all probability be more involved before they regained their normal condition.

She was placed in bed and her history then was that her hands grew more and more helpless; there were pains at times up the arms until November 26th. From that time they improved, the pains disappearing and motor power becoming greater, until, on January 10th, she could use her arms successfully in going about the room on crutches. She had an intercurrent bilious attack—probably from an overplus of milk—on November 23d and December 21st, but they affected her only slightly. Her bladder has shown some improvement.

II.

Case second, which was seen through the kindness of Dr. Ambler, of New York City, was a single woman 46 years of age, of the poorer class. Her mother was a woman of 75 years, and vigorous for her years, and her sister of about 50 years was strong and well. There is no history of any nervous disease in the family, and her previous history was entirely uneventful, so far as could be discovered, although the grade of intelligence in the family was not very high.

I saw her December 4, 1902. The statement was that eigh-

teen months ago she began to get numb in her left hand, then in the other arm, then in the legs—mostly in the lower part of the limbs. For a year before the attack—that is, thirty months ago practically—she had occasional attacks of night horrors, or delirium, entirely in the night, when she wakened them all by her cries, but that she had no systematized delusions or manias. She never had vomiting or nausea, but her mind appears at the present time somewhat weakened. When she was first seen by Dr. Ambler some months previously she presented the following symptoms only: Motor weakness, stiffness or spasticity, and exaggerated reflexes.

On examination it was found that her knee-jerk and ankle clonus were exaggerated, but she had no Babinski, but was practically spastic all over. She had wrist-jerk and jaw-jerk, was confined to her chair, and had practically a quadriplegia. Poor control over lips and tongue. She had oozing of saliva; she had difficulty of swallowing; she had a little pain in the trapezius muscle of one side, but had no sensory disturbance whatever, nor had she any bladder symptoms. The lower part of the face was immobile and relaxed; the upper part of the face was normal. She had no eye disturbance. She had some wasting of the muscles in the hand on the radial side, and some in the shoulder (trapezius, infra-spinatus, pectoralis m.). She was cheerful, but appeared somewhat weakened, as has been said.

She was seen again some time during the late spring of 1903, when the condition was found to be the same, with the exception of rather more difficulty of swallowing, more marked loss of enunciation, and a greatly increased wasting. The diagnosis was made of amyotrophic lateral sclerosis with an upward invasion of the bulbar muscles. The prognosis was unqualifiedly bad.

In September—about the 15th—I was notified that she had been examined by a prominent physician of this city, and a diagnosis made of brain tumor, and operation advised. Her condition as then reported to me was practically as I have described at the last examination, with the exception that swallowing in the last three days had become entirely impossible. It being impossible to feed her by a nasal tube under the conditions in which she lived, she was removed to the hospital,

where she died the same afternoon from cardiac paralysis. An autopsy was refused.

The object of this paper, Mr. Chairman, was very far from a design to elicit a discussion of spastic paraplegia. What I did wish to bring out was that fact which you have all remarked: That just as in every town there are a few old ulcers for the new doctor to work upon, so in almost all places there is a case or two of "creeping palsy." Such cases of palsy showing spastic symptoms are not uncommon, but cases of pure spastic paraplegia are uncommon, and just so soon as we find any sensory derangement, we can differentiate them from the symptom complex which has only weakness, spasticity, exaggerated reflexes, and Babinski's toe-sign. Such a case can thus be taken out of the realm of hocus-pocus and can be put into a class which "is going to do this" or "will probably do that," and this definite knowledge will give you a grasp upon your case, and the people a clear understanding of their condition and prospects. By this knowledge the malady may be taken out of the category of accepted evils, which must be patiently and passively endured, like corns and poor relations, and transferred to the group which may be benefited by vigorous treatment. "Vigorous treatment" may mean a few doses of the 200th just as truly as the cautery, blisters, the strong galvanic currents or the energy of the static machine.

Diagnosis may lead us to take measures that will bring the curable case into the list of cured cases, and while it cannot postpone the death of the incurable it will give them, and more especially their friends, an idea of their true condition.

OPTIC NEURITIS IN INFECTIOUS DISEASES.—The author has examined the retina and optic nerves of six cases dying of typhoid fever, in which no ante-mortem ophthalmoscopic examination had been made. In only two were there any changes found.

In one of these a marked chromatolysis at the periphery of the ganglionic retinal cells was found. In the other, the central retinal vessels showed degeneration of their walls. In one case dying of tetanus, chromatolysis of the ganglionic retinal cells could be seen. In two cases dying of pneumonia, no changes were found. The author concludes that in the neuroretinal lesions, consequent to infectious diseases, two pathogenic actions are invoked: one, an impregnation of the anatomical elements by toxins; the other a true microbic embolism of the central vessels.—Sourdille, Nantes, *La Clinique Ophthal.*

MILK IN THE DIABETIC DIETARY.

BY CLIFFORD MITCHELL, M.D., CHICAGO.

SHALL we allow a diabetic patient to drink milk, and if so to what extent?

Milk contains between 4 and 5 per cent. of sugar in the form of lactose or milk-sugar, consequently the patient who drinks milk drinks a saccharine solution.

Nevertheless milk has been at one time or other recommended by several physicians for use in diabetes mellitus.

Wille, the German, claimed to cure diabetes mellitus by the use of milk. Donkin, an English physician, recommended skimmed milk as the best treatment for diabetes.

On the other hand, Pavy, Rollo, Seegen, Frerichs, Ebstein, Cantani and Schnée have been all more or less opposed to milk.

Seegen allows it "sparingly." Ebstein condemns it as a cure, but advises careful trials in small amounts "to see how it agrees with the patient."

Hertzka recommends milk "when it agrees with the patient."

Vocke, himself a diabetic, declared that he made his supper all the year round on sour milk.

Senator allows pieces of ice in milk for quenching the thirst.

Schnée, although opposed to sweet milk, allows sour milk as a dietetic remedy for constipation.

Cantani recommends lactic acid, but excludes milk from his dietary.

Among modern writers on diabetes we find Purdy opposed to milk. Without discussing the question, he places milk on the list of forbidden articles.

In the latest authoritative work in English on diabetes mellitus, that of Williamson, we find the following in regard to the use of milk:

"With respect to milk considerable caution is necessary. This article of diet so useful in health and disease contains from 4 to 4.82 per cent. of sugar in the form of lactose, which for the diabetic of course is an objectionable constituent. . . . When glycosuria is increased by the milk it is better avoided. If,

however, the digestion is feeble and other foods are digested with difficulty, milk may generally be allowed. In the most severe forms of diabetes, when a very rigid diet is not indicated, milk may be allowed in moderate quantities. . . . Most physicians who have tried Donkin's skimmed-milk method record bad results."

In a recent article on the therapeutics of diabetes mellitus, W. Hale White says: "As a rule there is no harm in milk."

So far as my own experience goes I am wholly opposed to the skimmed-milk treatment of Donkin, in which the patient takes no food but skimmed milk. The following case from my practice well illustrates the pernicious effect of this treatment:

Mrs. H., 32 years of age, married. History of fairly good health until a year ago. Began to be troubled with pruritus vulvæ, and a month later noticed she was passing a good deal of urine. Her case was pronounced diabetes mellitus by the attending physician, who put her on a skimmed milk diet. At the end of three weeks, after living solely on milk, she came to me in a wretched condition, tormented with pruritus, losing flesh, pale, weak and despondent. The urine was 87 fluid ounces in 24 hours, of specific gravity 1040, containing 527 grains of urea, 50 of phosphoric acid, and $5\frac{1}{2}$ of uric acid; sugar 7 per cent. Ferric chloride reaction pronounced.

I forbade her to take any milk at all and put her on a diet of fats, green vegetables, meats, etc., excluding sweets and starches. In a few days she reported she was better, and at the end of a month the sugar was reduced to $2\frac{3}{4}$ per cent., the pruritus was but slight and she declined further medical treatment, insisting that she was "cured." The remedy used in this case was arsenicum album 2x, one tablet four times daily.

Next, as to the use of milk in the so-called mild cases occurring in middle aged or elderly diabetics. It has been my experience more than once that the sugar may be considerably reduced by eliminating milk wholly from the dietary. A male patient, 55 years of age, recently consulted me after going the rounds of various physicians. I found him dull, indifferent, and complaining of headaches, especially on waking in the morning or at night. A number of analyses of his urine showed sugar ranging from 3 to 5 per cent. I looked into his dietary and found it according to my ideas, except in one par-

ticular; he made his breakfast almost entirely on gluten bread and milk,—using a good deal of milk. I forbade both gluten bread and milk, had him substitute eggs, bacon and any meat that he wished for breakfast. In two weeks the sugar fell below 1 per cent., the lowest of which he had any record. At the end of six months it is still below 1 per cent. and his general condition is much improved. He can eat bread and potatoes in moderation.

It is possible that in diabetics with weak digestion, or during the gastric crises of severe cases, milk may be allowed in moderate amount, but I would prefer to use old Koumiss if it could be had, and if the patient would take it.

Koumiss twenty-two days old should, if properly made, contain but 1.64 per cent. of lactose (less than buttermilk, which contains sometimes as much as 3.38 per cent.), and at the same time is a useful article in the treatment of gastro-intestinal disorders. In cases of diabetes mellitus complicated by chronic nephritis it has come to be my chief reliance in the diet.

In regard to cream, it may be said that most diabetics do well on it, although it contains from 2.8 to 3.54 per cent. of milk-sugar. The high percentage of fat in it seems to be of such value to the patient that the ill-effects, if any, of the lactose are counter-balanced by it.

In my new work, *Diseases of the Urinary Organs*, will be found, in the list of Dietetic Specialties for the diabetic, Williamson's receipt for an artificial "milk" made from cream by mixing with water, to dissolve out the lactose, skimming off, adding egg-albumin and salt to the sugar-free cream, and diluting with water to suit the taste. This wholesome and nutritious liquid may be taken freely by diabetics and usually with much benefit. The great objection to it is the trouble in making it. Patients will try it for a time and then cease to use it.

GONORRHOEAL OPHTHALMIA.—A. B. Norton, M.D., has found that argen-
tum nit. is more effective in this disease than any other remedy. A profuse
purulent discharge, great swelling of the lids, intense chemosis and commenc-
ing haziness of the cornea, are the indications upon which he prescribes it.
He also uses a solution of argyrol locally.—*The Hom. E. E. and T. Journal*.

THE HISTOLOGY OF MENSTRUATION.

BY THEODORE J. GRAMM, M.D., PHILADELPHIA.

(Read before the Saturday Night Club of Microscopists on January 16, 1904, and illustrated with colored lantern slides.)

THERE is no other structure of the human body which experiences such vicissitudes as affect the endometrium from birth to old age. Developed as it is from the cylindrical and round cells of the ducts of Muller, whose coalescence has formed the uterus itself, we find it at birth to be composed of cells of foetal type. They lie closely approximated, are small, with irregular nuclei. The epithelial covering is composed of cylindrical cells lying very closely together, having elongated, staff-like nuclei. The so-called uterine glands are quite few in number, and a cross-section of the uterus, which at birth has not acquired the antero-posterior flattening characteristic of later years, but is more cylindrical, shows that there are from six to eight recesses or folds which may be viewed as the beginning of later gland-formation.

From this time on the changes which, during the course of an ordinary lifetime, are likely to be presented by this membrane are numerous and surprisingly diverse. For about fifteen years the endometrium is passing through a formative stage, during which it is acquiring the physical conformation required for the performance of its function after the period of puberty is reached, and from this simple structure as seen at birth, it has become histologically more complex and interesting. It now appears as a membranous structure, whose stratum proprium cells are much larger, lying more loosely within a delicate fibrillated network of interglandular tissue. The nuclei of these stratum proprium cells are round, but mostly oval, and quite large. Some lymphocytes are scattered among these cells. The cellular endometrial lining rests upon the muscular structure of the uterus. The endometrium is richly supplied with small bloodvessels, which are mostly situated in its base and not far from the muscular layer, and from them there are abundant offshoots of capillaries which traverse the endometrium up to

its surface epithelium in every direction, and particularly at the sides of the uterine glands. They may be recognized by the fusiform shape of the nuclei in the endometrium. Lymphatic channels are also abundant. My observations have not been successful in verifying the description of Boldt (Tenth International Congress at Berlin), who has reported seeing the endometrium traversed by unstriped muscular tissue especially about the glands, and whose function was believed to be to aid the discharge of the gland secretion. These fusiform cells appear to me to belong to the vascular channels supplying the glands and other cells of the endometrium.

After puberty the glands of the endometrium have greatly multiplied, so that now it would be unusual to obtain a microscopic field in which they are not present. These glands are composed of reduplications of the surface epithelium, and extend from the surface of the endometrium down to its base, and they sometimes penetrate the muscular tissue. For a variable distance from the surface they traverse along almost straight lines, but deeper down they become convoluted and tortuous, so that here in the section their transverse and oblique diameters are presented in the microscopic field. They continue down to the muscular tissue of the uterus, where their termination appears branched. The glands are lined throughout by cylindrical epithelium, and this is continuous with the same sort of epithelium covering the surface of the endometrium. Close inspection will reveal the interesting fact that the nuclei of the glandular epithelium are not by any means regular in size nor identical in shape. Some of them are rounded, the majority, however, being oval; some quite irregular shapes are seen, and there is considerable variation in their power of taking the stain. Although there is this lack of uniformity in the cells of the glands, there is sufficient constancy in the variations to suggest the thought, while certainly undergoing certain processes of development and retrograde change, whether they do not also possess a difference in function.

The condition of splendid maturity characterizing the endometrium during the period of possible procreation exists in a somewhat variable degree from puberty to the climaxis. But at the time of the climaxis and thereafter the tendency to senile atrophic change, which is apparent in the entire generative

sphere, is also observable in the endometrium; its glands are much smaller and narrower, the stratum proprium is not so thick and is more fibrous, its cells smaller; while the surface epithelium is not nearly so high, neither is the general surface so irregular or wavy.

The lining membrane of the uterus is commonly spoken of as a mucous membrane, but even from the brief description which has preceded, it becomes manifest that there are some distinct differences from mucous membrane as commonly seen in other parts of the body, and notably that the endometrium does not possess a submucosa. These differences have led some authors to maintain that the endometrium is not to be regarded as a mucous membrane, but as a glandular organ.

In this brief description of the minute anatomy of the endometrium when in a comparatively quiescent state, we have not at all touched upon the remarkable changes which it is undergoing in regular cyclic rotation during the twenty-eight days from one catamenial molimen to the other. These changes have been the subject of many elaborate and painstaking microscopical investigations which cannot fail to excite our admiration.

The difficulties which attend the study of the minute changes in the endometrium during menstruation are suggested by the divergent views of the rather numerous group of observers who have given close attention to the subject. The material employed in these examinations was the entire uterus removed shortly after death, the uterus removed by operation, and fragments of endometrium removed by the curette, note being made of the exact time of obtaining the same with reference to the day of menstruation or of the intermenstrual period. It must become apparent on reflection that the material obtained under such widely varying conditions must present appearances and suggest conclusions not uniform. Thus the observers whose material was furnished by the cadaver have almost uniformly recorded the extensive destruction during menstruation of the endometrial epithelium and of portions of the endometrium itself; whereas this observation has not been confirmed when the endometrium, either in a fragmentary condition or in its entirety, was obtained by surgical operation. The objection, apparently valid, has been made that the destruction of the sur-

face epithelium was induced by cadaveric changes or was brought about as one of the associated conditions of the serious diseases from which the patients died. Fatty degeneration of the cells has by some authors been regarded as primary and the exit of blood as the secondary condition, while others regard the processes as reversed. There is also some difference of opinion respecting the regeneration of the endometrium.

It is not desirable at present to review in detail the painstaking observations upon which these diverse views are based. But of late years some investigations have been made which seem to indicate that considerable advance has been made toward a correct appreciation of the histological changes taking place during menstruation.

Of the later works which have augmented our knowledge of the minute processes involved in menstruation is that of Mandl (*Arch. f. Gyn.*, Bd. 52, H. 3). He examined four uteri from cases operated during menstruation, in which the endometrium was believed not to be materially influenced by the conditions in the adnexa. He found that while the epithelial layer was in no case entirely destroyed, neither entirely retained, that there were always portions of varying extent in which the epithelium showed deficiencies in its continuity varying from two to twenty cells in extent, and through which the blood collected beneath the epithelium obtained exit and flowed into the cavity of the uterus. In places also in the extravasated blood epithelial cells, still adherent to each other in a row, were seen which doubtless belonged to a neighboring defect in the surface. The extent of these deficiencies varied with the amount of the hæmorrhage. In some preparations the epithelium was only elevated by blood extravasations beneath them, and serial sections were then able to show where the break in the surface took place. He could not observe a diapedesis of red blood cells between the epithelial cells, but leucocyte did thus pass through and simulated mitoses. It is possible that the diapedesis of leucocytes may open a path for the exit of the red corpuscles. The above-mentioned breaks in the continuity of the epithelium are repaired by means of mitotic proliferation of the epithelial cells and of the glandular epithelium. This regeneration is already present during menstruation, and takes place by indirect division of the cells of

the epithelium and of the uterine glands. Before menstruation there is a congestion and a loosening up of the cells by the fluid elements of the blood even before the advent of red blood-corpuscles. Somewhat later these collections of blood appear as above mentioned. All of the bloodvessels participate in this increased vascularity.

Below the region of the internal os the cells take on an increased ability to secrete mucus, and this is true also of the gland tubules in the parts nearest their openings. This condition is evidently brought about by the stimulating effect of the processes of menstruation, and has been confirmed by other observers. It explains the mucous discharge before and after menstruation commonly observed in healthy women.

Another valuable contribution is an article on the physiology of menstruation by Westphalen (*Arch. f. Gyn.*, Bd. 52, H. 1). His material was obtained mostly by curettement, and also from freshly extirpated uteri, and while quite fresh was at once fixed in Flemming's solution. In this manner many fragments were examined from fifty cases, and the data obtained were accurately tabulated. His observations are in accord with Moericke's, and have been confirmed by Gebhard. From these several microscopical studies the histology of menstruation may, according to the last named author, be described as follows:

The entire menstrual cycle, including the time from one catamenial period to the other, may be divided into three stages, comprising that of the premenstrual congestion, the stage of menstrual hæmorrhage, and the stage of post-menstrual regeneration.

The stage of premenstrual congestion begins about ten days prior to the hæmorrhage, and consists in a loosening of the upper third of the endometrium by serous and later sanguineous exudation, which separates the cells. According to Gebhard (Veit's *Handbuch*, 3-1-11), this exudation gradually increases in extent and amount forming localized extravasations at the points of least resistance in the vessels, and ultimately reaches as high as the surface epithelium, under which it forms collections of blood to which he has referred as subepithelial hæmatomata, and by reason of these collections the surface becomes undulating. A distention also of the vessels of

the endometrium takes place, beginning deeply and gradually approaching the surface. The uterine glands also experience an increase in size and become dilated and tortuous, the lining cells become much larger, and their nuclei rise above the middle of the cells. Special staining has shown that there is an increased elaboration of mucus, and the gland lumina are filled with mucus. Cell regeneration during this stage is at a minimum.

During the stage of menstrual bleeding the blood collected under the epithelial layer, as above mentioned, finds exit in part by the corpuscles passing between the cells of the intact epithelium, though the amount of bleeding by this process is but scanty. By far the larger amount of the blood reaches the uterine cavity by a separation of the epithelial covering of the hæmatomata in the upper layers of the endometrium, whereby a much more easy exit is provided for the free blood collected in the tissues, and for that remaining in the turgid capillaries and small vessels. Much of the epithelium raised by the sub-jacent collections of blood again falls back into or near its original place, although it does happen that masses of cells unable again to accomplish this become separated and appear as cellular fragments in the menstrual discharge. Mandl has particularly studied this process. Mitotic cell proliferation already appears during menstruation.

The careful work of the authors just cited, who have established the facts mentioned, shows how fallacious was the teaching of former years that the endometrium was cast off at each menstrual period, or there was at least supposed to be a more or less complete desquamation of the surface epithelium. This belief found some confirmation in the investigations of a long list of observers who worked mainly with material obtained after a varying number of hours subsequent to death, or from patients affected with serious systemic diseases, many of which have since been shown to exert a destructive or inflammatory action upon the endometrium. The description above presented is based upon the results of observations of material obtained by curettement and from the uterus removed by operation, from which fragments were forthwith preserved in fluids known to best fix cell changes.

Following this stage in the menstrual cycle is the period of

post-menstrual involution and regeneration, and its duration is from the cessation of the bleeding until after the eighteenth day subsequent to the flow. As suggested, it is the time during which there is a recovery from the pronounced histological alterations which distinguish the preceding stage, and during which a regeneration takes place. The more or less extensive areas of epithelial cells, elevated by blood extravasations beneath them, fall back upon or near their former location, and become adherent there. The blood, both subepithelial and lying deeper down, which was not liberated during the hæmorrhagic stage is absorbed and at times marks its former location by deposits of pigment. The glands again contain mucus.

This stage is characterized by mitotic proliferation of cells. The mitoses are numerous in the epithelial covering and in the gland epithelium, in the fusiform cells surrounding the glands, and especially in the stratum proprium cells. One of my own slides, made while studying this subject, shows eight of these interesting cell changes not far removed from each other. Twenty-four hours after menstruation Westphalen found in two cases only single mitoses in the gland and superficial epithelium near the gland openings, while in two other cases there were many mitoses in the upper parts of all glands, as well as single ones in the upper layers of the stroma and in the superficial capillaries. From the sixth to the eighteenth day there were numerous mitoses constantly present. He says that the regeneration seems to reach its highest point of activity about the fourteenth or fifteenth day after the beginning of menstruation. From the middle of the third week onward there is noticed a marked diminution of the number of karyokinetic figures.

Perhaps a word should be said in reference to fatty degeneration which has so frequently been mentioned in connection with the minute processes of menstruation. The observations of Westphalen are that fat in the form of diffuse fine-grained infiltration of the protoplasm of the epithelial and stroma cells can be found in all phases of menstruation and of the interval; but in his cases there were so many individual differences that he does not know which to regard as the normal. After some description of his observations, he concludes as follows:

1. Diffuse finely granular fat infiltration is at all times present in the normal uterine mucous membrane, and hence does not bear a causal relation to the hæmorrhage.

2. The fragments of tissue cast off by the menstrual process undergo fatty degeneration.

3. At the end of menstruation there is an increased tendency to fatty metamorphosis in the upper layers of the mucous membrane; but this does not determine the death of the cell; the fat may be absorbed.

We may readily assent to the statement that with the results of these investigations the subject has been cleared up; and the importance of that statement can only be appreciated when we have given some attention to a historical review of the hypotheses and erroneous views which have been passed along from one author to another for many years. The facts which have been placed within our reach by the work of the authors just reviewed appear simple enough, when available data have made possible a lucid statement of the processes involved; they are wonderfully simple as are many of Nature's processes, but let us not forget that they too are simply wonderful, for they explain how in this unique organ, the uterus, a hæmorrhage regularly recurring is physiological, whereas a similar hæmorrhage from any other organ of the human body would be manifestly pathological.

PRE-TYPHOID STATE.—(Rudolf.)—The condition of general gastro-intestinal ill-health that sometimes precedes typhoid fever receives notice in this paper. It has been alike the experience of observers in general that such intestinal ill-health does precede typhoid, and it is to this experience that he calls attention. Several cases are reported, and usually such cases are of the severe type. The possibilities are that the lowered state brought on by the intestinal disturbance is responsible for the infection of the typhoid bacillus because of lowered resistance, or that the bacillus may be in the intestines, giving rise to the disturbances, and that either by the decreased resistance or virulence of bacillus true typhoid fever occurs. As regards the first of these possibilities, it is favored by the fact that gastro-intestinal disturbances predispose to Asiatic cholera and dysentery, and it is not unlikely that they predispose to typhoid fever. It was noticed in the recent British campaign that the soldiers suffering from catarrhal bowel affections were the most prone to typhoid. The second possibility seems to him to have hardly been supported by facts, though there are still some that favor it, such as diarrhœa occurring during Asiatic cholera or during typhoid epidemics, which are not identifiable with the true disorder. He thinks, however, that the balance of evidence is in favor of the first proposition, that the condition of ill-health lowers the resistance and favors invasion by the typhoid germs.—*Canada Lancet*, Toronto, February, 1903.

EDITORIAL.

THE RESPONSIBILITIES OF MEDICAL TEACHERS.

WHEN we think of the number of young men who are annually graduated as physicians from our schools and consider that each one of them will, in a short time, have human lives entrusted to his care, and that upon the skill and knowledge acquired by him in college will often hang the issues of life and death, we must stand appalled at the weight of responsibility which rests upon the teachers of a medical school. With each year, and with each class sent out, the circle of their influence widens. Greater and greater becomes the number of those who feel the influence of their teachings, and of suffering humanity who could, if they would, trace to them the good or the evil which has befallen them in their endeavors to escape the ills which beset humanity. For a conscientious teacher, the sense of this responsibility would become too overwhelming were he not buoyed up by a trust either in Providence or Fate, and a belief that, under all circumstances, and no matter what the results of the efforts of his scholars may be, he is, as they are, but instruments, in blindly working out the details of a universal plan.

But the responsibility of the medical teacher must not be regarded as unlimited. He must not be held responsible for results which are entirely beyond his control. He is responsible, in the first place, to himself; to his own conscience. By conscience we do not mean his moral, but his medical, conscience. He must teach what he believes to be the truth, but he, above all others, should beware of accepting as truth every new theory or practice which may present itself in the ever-varying kaleidoscope of medical opinion. He owes it to himself not to be willing to set aside views which have in the past seemingly proved their correctness by his own experience, merely because a different one is presented from an authoritative source. It is his duty to examine critically, and with no

bias towards novelty, whatever comes to his notice in a legitimate way, and then, having reached a conclusion, no matter what that may be, his conscience will not allow him to teach otherwise. We all have opinions, medical and others, which are rather the products of previous education and environment than the results of our own independent thought and experience. So long as these continue to hold for us to be the truth, no fault can be found, but when our mental attitude towards them is changed, and they are supplanted by growths of our enlarged experience and riper thought, then, to continue outwardly to profess allegiance to them, and to teach them, is unworthy of a conscientious teacher and a flagrant disregard of his responsibility to himself and to his "school."

He owes a responsibility to his "school," which, far from demanding of him, after changing some of his views, a renunciation of his adherence to it, rather calls for a nearer union with it and a more active interest in its life. Of course, where the fundamental principles of a school have seemed to prove themselves false, there can be no further abiding in it, but in very few cases does such an extreme change of view take place. The variations are ordinarily in regard to methods of application of the principles, which may be allowed without affecting the truth of fundamentals, and he who has ever been a true adherent of a school will surely feel an interest in endeavoring to promote its progress in the truth as he has come to apprehend it. Far from abandoning it to what he feels are its errors, he will seek to correct them. This he will do, not by ridicule or by violence, but by leading it through the same steps of evolution which he has taken in arriving at his present standpoint. In his capacity as teacher of those who have come to receive instruction in a school to which he ostensibly belongs, he must uphold and emphasize its principles, and while conscientiously presenting his own personal views must show how these are not irreconcilable with them.

This course is demanded by the responsibility which the teacher owes to the student. His duty to the student is not to be measured by the amount of tuition fees received; there is a higher moral duty, based upon the tacit or expressed purpose which the student has in view, and which his teacher undertakes to help him attain. The teacher is called upon to give his hearers the best that is in him. The true object of educa-

tion, whether it be general or special, is not so much to furnish bare facts as, by them and by the method of their presentation, to stimulate and to train independent mental effort.

At the best, the actual amount of knowledge taken with him by the student on leaving college is but small in comparison with that which, as years pass, he will find necessary to possess in order to be successful in his chosen calling. How to acquire this, and how to guard himself against being imposed upon by a spurious appearance of truth; how to observe for himself, and how to utilize the results of his observations, are some of the objects which the conscientious teacher should strive to teach the student. This can be done in any branch of the curriculum, be it theoretical or practical. The student has a right to expect to receive from his teacher what the latter regards as the truth, but is not justified in demanding that this shall coincide with his own traditional and immature conceptions of the same. Even when backed by the opinions of his "preceptor," criticism of the teachings received comes with a very poor grace from a student. The teacher who fully discharges his responsibility to his school as above outlined can hardly fail to meet all the legitimate demands of his duty towards his students. There will then be no room for complaint that the old is ignored, or, on the other hand, that the new is not recognized. To the teacher of the more practical branches, the fact that his teachings will for years be almost the only guide to the young physician should be an irresistible incentive to present only the best, and that which has approved itself to his own ripper judgment and more extended experience. He will not go on reiterating unsubstantiated assertions and doubtful doctrines merely to cater to a supposed demand by the medical public for the antique and traditional. He must recognize the possibility of growth and development, yea, the *necessity* of both, and must present to the student the results of these, both in the school and in himself. Only so can he discharge his responsibility to the public. Although the establishment of State Boards of Medical Examiners has lowered the position of the teachers in the medical colleges, and has relieved them of much of their responsibility, yet enough of this remains to demand that they do not set the stamp of their approval upon unworthy material. Thorough practical teaching is the predominating trend in all medical schools of the present day, and though there is still

more or less tinsel padding in the curriculum, according to the amount of endowment at command, the education offered the student can, as a whole, be regarded as furnishing a very satisfactory preparation for his work. The public, too apt in this day of newspaper science to depreciate the value of the physician's services, often until it is too late for them to be of any use, still has a right to require that the physician's double endorsement should be more than an empty form. It is helpless in the hands of an incompetent. As the public, the great mass of humanity, is in the end the party to be benefited, the teacher's responsibility to it includes and presupposes all the others, and it is only a full realization of the direful and ever-widening effects of any neglect of them that can keep the teacher up to the mark.

THE RELATION OF THE HOUSE TO TUBERCULOSIS.

THE *Medical News* of February 20th contains an important article by Dr. Lawrence F. Flick on "The House Infection of Tuberculosis." "Man," says Dr. Flick, "has built his house to keep out his enemies, to protect himself from heat and cold, and to screen himself from the curiosity of his neighbor. He has sought to make his home his castle, but in reality he has made it a place wherein he courts death."

The life history of the tubercle bacillus is a beautiful example of nature's jealous care to preserve every form of life. The tubercle bacillus is a helpless, motionless organism, and when cast off from its host requires special protection until it can gain admission to a new host. The streptococcus is the agent which furnishes this protection. Entering the tubercular areas in the lung or elsewhere, it breaks down the tissues and allows the tubercle bacilli, each surrounded by an envelope of necrotic tissue, to be cast off from their host. This envelope preserves the bacilli from the destructive influences of air, sun and water, until it can find a new soil for its growth.

To obtain admission into a new host, the tubercle bacilli require special opportunities. These it secures by means of its toxins and the toxins of its associates. These toxins are poured into the blood of the new victim, who, by reason of the chilliness, malaise and general weakness they produce, is deluded with the idea that he must get away from the fresh air and

sunshine, and he seeks shelter in some warm enclosure. There the organisms rapidly overcome the resisting power of the body now deprived of fresh air and proper exercise; there they are cast forth by myriads, and protected from their natural enemies lie in wait in concentrated form for fresh victims.

The house is the great source of infection by the tubercle bacillus. An enclosure of some kind is so necessary, in order that the disease may spread from one person to another, that contagion is impracticable without it. Out of doors the sun, air and water destroy the germs in a very short time. Aside from this, it is almost impossible for the infective material to become sufficiently concentrated in the open air to overcome the resisting power of man and produce an implantation. In the house we find the opposite conditions prevail. There the bacilli encased by a coating of dry necrotic tissue remain vital for months. These dried organisms in the form of dust settle on the walls, in the carpet, in the furniture, and even in food, if it be allowed to stand in the room. The air of such a room is laden with concentrated vital tubercular matter. Individuals inhabiting it constantly inhale and frequently swallow the specific organisms, and it is only a question of time when implantation will occur. One by one the members of the family become infected, and this gives rise to the idea that tuberculosis is a family disease. We now know that it is a disease of the *home* rather than of the *family*.

The house prepares the soil for the tubercle bacillus. These parasites cannot take root in tissue unless its vitality is lowered by traumatism or malnutrition. Food, air and water are the substances used in maintaining the nutrition of the body. The most necessary of these is air. Life may be maintained without food or water for several days, but only for a few minutes without air. Air has two important functions: to supply oxygen and to carry off poisonous products of tissue metabolism. Deficiency of oxygen leads to imperfect oxidation of food and to the retention of toxic substances in the body. Malnutrition of the cells follows. Indoor life, by thus lowering the vitality of tissue, renders possible the implantation of the tubercle bacillus.

The house nurtures the growth of the tubercle bacillus when implantation has been accomplished. The tendency to recovery is very great in the early stage of tubercular infection. All that is needed is a little rest, extra food and fresh air. Prior

to the destruction of tissue essential to the normal functions of the body, the economy is able to throw off the disease. This often occurs without the aid of medicine, and would probably be accomplished in all cases were it not for the house. Insufficient air, overwork, dissipation, and general sluggishness of the digestive and eliminative organs all tend to create an environment which fosters the at first feeble growth of tubercle bacilli.

The house is the place where tuberculosis develops into consumption; where the unrelenting parasites at last bring their victim to the grave. Tuberculosis itself seldom proves fatal. Experiments show that when living in the open air both men and animals may go through life with tuberculosis and even reach old age without being seriously inconvenienced by the disease. Indoor life soon leads to infection of the tubercular areas by the streptococcus. Consumption develops and consumption kills. "Consumption," says Flick, "may well be termed a house disease. Without the house it would not exist. It depends on the house for its implantation, propagation, and for the evolution of all its phenomena. The house is the place where the bacillus lies dormant in wait for its new host; it is the place where the new host gets his implantation; it is the place where the tuberculous subject gradually becomes consumptive; and it is the place where the consumptive dies."

In what we term the progress of civilization, man has created for himself an environment which often works to his own destruction. With supposed cunning he has constructed his house so as to exclude the outside air and sunshine; has minimized his hours of rest and relaxation, in order that he may have more time to accumulate wealth; has modified and even predigested his food, that he may eat more without discomfort. In his departure from the simple and natural modes of life to the complex and artificial he has made himself an easy prey to many diseased conditions, especially tuberculosis and cardiovascular degeneration. When he realizes that pure air and simple food are infinitely superior to the artificial substitutes of his own creation, he will be both happier and more healthy. The solution of the tuberculosis problem lies not in the mysterious potion of the pharmaceutical laboratory, but in the utilization of the natural therapeutic agencies which a munificent Providence has provided for the preservation of man's health.

G. H. W.

GLEANINGS.

SPONTANEOUS FRACTURE OF THE RIGHT HUMERUS FROM A GUMMA OF THE BONE, WITH STENOSIS OF THE TRACHEA.—Prof. Haslund reported before a recent meeting of the Danish Dermatological Society the case of an unmarried sailor who had contracted syphilis seven years previously at the Society Islands. He had received but little treatment during the secondary stage, and two years ago tertiary nodes appeared in the skin and bones, for which he was given KI. Quite recently he became hoarse and suffered from respiratory troubles. A swelling appeared above the right elbow-joint, and three months ago while at work he felt something snap there, after which the arm for some time became useless; little by little its strength and usefulness returned, though not fully. When observed, the patient was somewhat pale, emaciated and quite hoarse, with a short, barking cough, was short of breath with distinctly stridulous breathing; slight depression of the suprasternal notch, none of the epigastrium. Laryngoscopic examination revealed nothing abnormal above the glottis, but there seemed to be a prominence below the anterior laryngeal commissure. The internal organs were normal. Above the right elbow there was a considerable enlargement of the bone and abnormal mobility in all directions, without crepitus. The elbow-joint was not normally moveable, but the strength of the hand and arm was quite good; no pains nor lameness. A skiagraph showed nothing abnormal. His nights were disturbed by dyspnoea and cough; swallowing was slightly painful. No signs of aneurysm. He received KI, then thirty inunctions, and again the iodide of potash, which he is still taking. He soon improved, but the respiratory trouble increased in gravity, so as to be quite alarming. He was obliged to sit up in bed, and could neither eat nor drink, but of late he has so improved that he can lie down and sleep all night, as well as eat and drink.—*Hospitalstidende*, No. 51, 1903.

Frank H. Pritchard, M.D.

HYDROCHLORIC ACID IN GOUT.—Dr. Falkenstein, at a recent meeting of the Berlin Medical Society, read a paper in which he expressed the view that gout was dependent upon functional secretory disturbance of the glands of the stomach, which he has treated by the administration of hydrochloric acid. He first began with this measure in his own case, for he had been gouty for twenty-three years, and only the past two years, after failures of the usual remedies, he had commenced to take from forty to sixty drops of chemically pure hydrochloric acid. This was soon followed by a disappearance of the pains and better health than he had enjoyed for years. He has obtained equally good results in a number of similar cases.—*La Semaine Medicale*, No. 3, 1904.

Frank H. Pritchard, M.D.

TO PREVENT IODISM.—Dr. Fritz Lesser, of Berlin, from a series of experiments and investigations has found that the various iodine compounds, particularly the iodide of potash and sodium, as well as iodopin, are immediately

converted into KI and quite rapidly excreted through the kidneys. He therefore concludes that in giving the iodides or iodopin by the mouth, in the usual doses, it is quickly changed into KI, and the mucous membranes flooded by the drug, thus giving rise to iodism. Hence he advises administering these compounds in viscid vehicles so to favor slower absorption and to divide the day's dose into a greater number of single doses, also to administer it per rectum and to give iodopin subcutaneously.—*Hospitalstidende*, No. 1, 1904.

Frank H. Pritchard, M.D.

FALSE CURES OF LEUKÆMIA.—Dr. Plehn, of Berlin, at a recent meeting of the Medical Society of that city presented a man who came under his observation last October with all the signs of a grave leukæmia: his blood contained 90,000 whites per c. millimetre, with only 2,000,000 reds; he had ascites, swelling of the liver and spleen, a hæmatoma of the region of the spleen, retinal hæmorrhages, etc. He was given arsenic in large doses, but his condition became worse, later he improved, his strength returned, the hypertrophy of the spleen and liver decreased, so that at present the patient gives one the impression of being cured, for he only retains a relatively slight lymphocytosis.

The writer holds such an improvement to be very exceptional in leukæmia, for a retrocession of the blood-signs usually coincides with an aggravation of the general condition.

Dr. M. Krohn, in the discussion, did not think such seeming cures of leukæmia to be as rare as Dr. Plehn held, for he had observed two such cases. One of these was that of a child of 3 years, affected with a very extreme degree of leukæmia; indeed, so much so that all treatment would seem of no avail when it was seen; yet with good food and stimulants, as camphorated oil, it soon regained its health in the course of several weeks, so that it looked like a normal child. Arsenic was not tolerated. But this amelioration only lasted three months, when it died. The second case, a woman, whom he treated a dozen years ago for a grave leukæmia, but who is still alive and leads an active life, though she still suffers somewhat. The persisting relative lymphocytosis proves that this woman is not wholly cured. Prof. Senator has observed several such cases of remission in leukæmia; they are quite frequent.—*La Semaine Médicale*, No. 3, 1904.

Frank H. Pritchard, M.D.

RADIOTHERAPY IN THE DIAGNOSIS AND TREATMENT OF CERTAIN FIBROMAS.—Dr. Foveau de Courmelles reported before the Académie des Sciences of Paris the results which he has obtained with radiotherapy in two cases of uterine fibromas where the cachectic appearance of the patients, their yellowish color and pains made him think that the growths might be malignant. Operation being refused he tried radiotherapy. The first case was that of a woman of 47 years, who had an abdominal tumor reaching 20 cms. above the umbilicus; after twenty-seven sittings her complexion improved, her strength returned, and her appetite was much better, while the tumor was felt to be below the brim of the pelvis. In the second case the tumor, of the size of a hen's egg, had decreased one-half in size, and her general health having also become better.—*La Semaine Médicale*, No. 3, 1904.

Frank H. Pritchard, M.D.

POISONING BY POTATO SALAD.—Dr. Dieudonné, of Wuerzburg, relates that in August, 1903, about one hundred and fifty persons were taken ill after

having eaten of potato salad. They suffered from headache, vertigo, nausea, violent and repeated vomiting, with more or less collapse; many had cramps of the extremities, especially of the calves of the legs. Temperature normal, pulse weak and slightly quickened; the pupils reacted sluggishly to light, but were neither dilated nor narrowed. The majority were better in a few hours, though some felt weak even the next day. Metallic poisons and solanin were excluded, while bacteriological examination of the food revealed the presence of the *bacillus proteus vulgaris*. These germs were fatal to animals, and experiments yielded positive results. The weather had been hot, the potatoes had been boiled the day before, cut up and left over night in baskets to be made into salad the following day. Possibly, the *proteus* germs had been transferred from the hands of the persons who had peeled the potatoes. He thinks that some of these cases, where a number of persons are poisoned by potatoes, are not solanin-, but *proteus*-poisoning.—*Berliner Klinische Wochenschrift*, No. 1, 1904.

Frank H. Pritchard, M.D.

IS APPENDICITIS MORE FREQUENT THAN OF YORE?—Dr. Villaret has examined the literature and statistics to be able to answer this question. Seemingly, the number of appendicitis cases has greatly increased of late years. It has been held that the greater frequency was due to the more extended use of enameled kitchenware. The enamel was thought to split off, and the jagged and sharp splinters being caught in the appendix, there gave rise to irritation and inflammation. However, this apparent increase is only due to a better knowledge of its pathology and symptomatology and a lessening of the number of cases of peritonitis, gastric troubles and peritonitis with which appendicitis was earlier confounded. An examination of the statistics of the German army shows this to be true.—*Hospitalstidende*, No. 3, 1904.

Frank H. Pritchard, M.D.

TREATMENT OF SARCOMAS BY THE X-RAYS.—Dr. Kienboeck, at the session of the Imperio-royal Medical Society of Vienna, of January 22d, showed a patient who was suffering from a sarcoma of the nasal cavity which had been operated on seven years before, and which had recurred in spite of repeated operative interference. It had invaded and involved the buccal and pharyngeal cavities, the antrum of Highmore, the orbital cavities and caused the eyes to protrude, and from compression of the optic nerves complete blindness had resulted. The results of treatment by Roentgen's rays have been wholly beyond expectation. After thirteen sittings, scattered over three months, the growth has so decreased in volume in all its parts that the eyes no longer protrude and the patient's eyesight had so improved that he is able to get about alone. The diagnosis was confirmed histologically.

Dr. M. Grossman also presented a man of 39 years having a sarcoma of the nose which had recurred after several operations, but which had been treated by these rays. Treatment was begun the 15th of last September; there only remained now a little point in the nose which was inaccessible at the beginning of treatment. The remainder had disappeared, leaving normal mucous membrane.

Dr. Holzknecht observed that sarcomas are susceptible to cure under the X-rays even when they are situated in internal organs as the ovaries, while carcinomas must be superficial in order to be influenced. As the quantity of

these rays which penetrate deeply is but slight, one must admit that they act electively upon certain pathological cells which are particularly sensitive, as those of sarcoma and mycosis fungoides.—*La Semaine Médicale*, No. 4, 1904.

Frank H. Pritchard, M.D.

CERTAIN CEREBRAL SYMPTOMS OBSERVED DURING THE COURSE OF TREATMENT OF ŒDEMAS.—Dr. Merklen read a paper recently before the Société Médicale des Hôpitaux, of Paris, in which he related the histories of five cases of arteriosclerosis with renal insufficiency, where certain brain-symptoms were noted during the course of absorption of œdema due of cardiac or hepatic origin. These symptoms consist of stupor, Cheyne-Stokes's breathing, delirium, confusion of mind, or agitation with anguish, or even of coma with general muscular rigidity, Kernig's sign and relaxation of the sphincters. One of his patients died. Three recovered, the symptoms having disappeared after a few days to three weeks; in the fifth they reappeared twice to disappear after absorption of the œdema. In this latter case the absorption was rapid and spontaneous, while in the others it was slow and brought about by remedies. One peculiar feature deserves attention, *i.e.*, that the œdema was absorbed without the quantity of urine being increased. Therefore the fluid must have been retained in the blood from incompetency of the kidneys. These symptoms might be explained, as Andral had previously done, by a thinning of the blood, for he had produced similar ones by injection of water into the veins, or, by a retention of excremental principles causing an autointoxication and œdema of the brain. This latter hypothesis has been proposed by Vogel, Picard and Bartels to explain those attacks of convulsions which follow absorption of œdema in cases of Bright's disease and which precede recovery. Prof. Eichhorst has observed a certain number of heart cases where delirium was brought about by absorption of dropsical effusions. Whatever be the pathogenesis of this condition, treatment should be directed towards overcoming retention and increasing supplementary excretion by blood-letting and purgation. Heart tonics and diuretics should not be discontinued on the appearance of these symptoms, for they are in no case responsible for these complications. This point has been especially touched upon by Prof. Eichhorst, who has seen them disappear on continuing the use of theobromine and digitalis. As to the prognosis, it is much better than would seem from the signs, if one judge from the number of recoveries. Dr. Dupré asserted in the discussion that such symptoms will disappear very rapidly if one extract a little cerebro-spinal fluid. Dr. Barth rather thought the symptoms to be due to retention of excretory products in the blood and depletive treatment to be indicated, as it seemed to do good.—*Le Semaine Médicale*, No. 3, 1904.

Frank H. Pritchard, M.D.

POISONOUS SYMPTOMS AFTER THIRTY GRAINS OF SALICYLATE OF SODA.—Dr. Jones, after administration of thirty grains of sodium salicylate, observed very distressing complex of symptoms consisting of a feeling of anxiousness about the heart, great weakness, so that the patient thought he was about to die; this was preceded by a stage of excitement. This condition lasted four hours when the patient fell asleep. The following day when she awoke she was well.—*Glasgow Medical Journal*, January, 1904.

Frank H. Pritchard, M.D.

THE ACTION OF HELMITOL AS A DISINFECTANT OF THE URINE.—Dr. E. Impens, of Elbereld, has experimented on man and animals to determine the urinary disinfectant qualities of helmitol. It is a combination of urotropin with anhydromethylen-citronic acid, which splits off formaldehyde, rendering the urine antiseptic. The disinfecting action of urotropin is much shorter in duration than helmitol, for experiments have taught that after administration of 2 gms. of helmitol the urine still resists fermentation after six hours, while with a corresponding dose of urotropin this action persisted only one hour after its ingestion. One gram of helmitol renders the urine secure against fermentation for a longer time than twice the quantity of urotropin. —*Berliner Klinische Wochenschrift*, No. 4, 1904.

Frank H. Pritchard, M.D.

HEREDITARY EARLY SYPHILIS, WITHOUT EXANTHEM.—Dr. Carl Hochsinger, of Vienna, asserts that visceral affections of congenital syphilis of nurselings do not make their appearance at the same time as the cutaneous manifestations, but rather earlier. Indeed, the visceral and osseous involvements of hereditary syphilitic children are no tertiary nor gummatous products, but rather later early-phenomena, which appear late in the disease. They are diffuse inflammatory affections, which proceed from the perivascular connective tissue of the smallest bloodvessels. Fœtal syphilis is in the greater proportion of its course a hereditary early-syphilis, without exanthem. In a certain number of hereditarily syphilitic children no eruption appears at all: Hochsinger reports on fourteen such cases observed by him. From these observations one may deduce certain rules of importance in practice, and above all that they are different from those followed in the acquired variety. In the former one should treat antisypilitically as soon as the diagnosis is made, while in the acquired form the appearance of the eruption is awaited first. —*Archiv fuer Dermatologie und Syphilis*, Bd. 65, Hft. 2.

Frank H. Pritchard, M.D.

ACUTE EPITHELIOMATOSIS OF THE BREAST.—Dr. de Beurmann recently presented before the Société de Dermatologie et Syphiligraphie, of Paris, a woman, nursing her fifth child, who one day noticed a slight node in her left breast; in less than two months the entire breast was invaded by the growth, which he termed an acute epitheliomatosis process. In the presence of such a rapid growth is one justified in interfering surgically, following with radio-therapeutic exposures, in order to prevent a return of the neoplasm, if possible? Or, is it better to abstain entirely? Prof. Brocq advised extensive excision of the gland, to be followed by X-ray treatment, and at the same time hypodermatic injections of arsenic or quinine. —*La Semaine Medicale*, No. 2, 1904.

Frank H. Pritchard, M.D.

MISTAKES IN DIAGNOSIS CAUSED BY PAINS IN THE REGION OF THE APPENDIX.—Dr. Guinard called attention at a recent meeting of the Société de Chirurgie, of Paris, to the possible errors in diagnosis in those cases of chronic appendicitis which suffer from nothing else than pain in the region of that organ. This pain, this appendicalgia, is not always about the region of McBurney's point, but rather lower down, near the crural arch, and at times even on the left side. He had observed such a case in a woman who had been treated successively for hepatic colic, gastric disease, a uterine fibroid and a crural hernia. In another case, in a man who came under observation

to be operated on for an old inguinal hernia, a diseased appendix was found, which was the point of departure of certain painful crises from which he had been a sufferer and which had been regarded as renal colic. In a third case, after an operation for the radical cure of hernia, he was obliged to remove the appendix at a second operation, as the pains of which the patient complained did not seem to be relieved by the operation, and which certainly were of appendicular origin.

On the other hand, uterine fibroids are not painful, except as they are associated with lesions of the tubes (salpingitis), and whenever a woman affected with a fibroid complains of pains in the right iliac fossa, one should always think of a concomitant appendicitis. Thus, out of eighteen women operated on for fibromata, and who experienced pain, twelve had diseased appendices; the others had affections of the adnexa. The pains associated with ovarian cysts are most often dependent on a diseased appendix, as two cases operated on proved. He has also noted eleven cases of appendicalgia accompanied with lesions of the tubes.

Sclero-cystic ovaries may also give rise to errors of diagnosis; thus, a woman, who complained of abdominal pains and who was operated on five years before by one of his colleagues for a sclero-cystic ovary, was only relieved after her diseased appendix was excised, in which was found a fecal calculus. In two cases, by mistake, he ascribed the pain to a movable kidney, not recognizing the appendicular lesion. He has also done a perineorrhaphy for a woman, who had a prolapse of the uterus and an appendicalgia, where the appendix eventually had to be removed to free her from pain.

One might multiply these cases; thus, recently he had occasion to curette and amputate the neck of the uterus in a woman who suffered incessantly from abdominal pain where he did not suspect the appendix to be at fault. Some time after, having an attack of appendicitis, the true cause became apparent, and the organ was removed during the interval.

In another patient, who had been treated for metritis and who had suffered from pain for four years, one could make out on vaginal examination in the right lateral cul-de-sac a mass which was thought to be due to a salpingitis; but on opening the abdomen these were found entirely normal, and the mass to be formed by the mesentery which was adherent to the appendix, and which had been the point of departure of the previous symptoms. In two similar cases only removal of the appendix relieved the pains. Hence there is a whole series of cases where, with pain in the right iliac fossa, the clinician should keep in mind the possibility of its being of appendiceal origin. Besides, in doing an abdominal section, one should not close the belly without carefully having examined the appendix.—*La Semaine Médicale*, No. 4, 1904.

Frank H. Pritchard, M.D.

ON THE VISCERAL MANIFESTATIONS OF THE ERYTHEMA GROUP OF SKIN DISEASES.—(Osler.)—Eleven new cases are added to the group already reported, and in all there have been seven deaths, or a mortality of 24.1 per cent. The members of the group have not all the same ætiology, and the individual members have a very diverse ætiology. The action on different persons is also quite distinct and separate. This is particularly so in the case of the animal and vegetable substances, causing urticaria. The chronic forms of urticaria probably illustrate a morbid and persistent sensitiveness of the cuta-

neous vessels to poisons of either intestinal or tissue origin. The importance of the local status is shown in that remarkable form of urticaria coming from exposure to cold. So long as the face is at a temperature of 60° the patient is all right, but exposure at 40° is followed at once by an outbreak of urticaria. A peculiarity may be transmitted through several generations, as in angio-neurotic œdema; must either be a morbid susceptibility of tissue or an inherited peculiarity of metabolism. Certain types behave like acute febrile diseases. In many of the fevers there may be symptomatic erythemas. The visceral lesions are most diverse in form and situation, and vary considerably with the character of the eruption. Certain skin lesions are associated secondarily with disease of the internal organs. The writer discusses the various complications. One of the most common features in this group is recurring attacks of colic, sometimes with vomiting, diarrhœa, and occasionally blood. In fourteen of the cases there was an acute nephritis. Acute endocarditis very rare. The chief danger is from the kidney. Protracted rest in bed and a milk diet furnish the best measures for relief.—*The American Journal of the Medical Sciences*, January, 1904.

William F. Baker, A.M., M.D.

SOME PERSONAL OBSERVATIONS AND EXPERIENCE OF THE SCHOTT TREATMENT OF HEART DISEASES.—(Baldwin.)—The writer thinks it must be recognized as one of the most valuable additions to the therapy of these diseases. That saline baths, with a certain percentage of carbonic acid gas, slow and strengthen the heart's action, has long been noted, but it remained for the Schott brothers to demonstrate. That carefully regulated baths and resistance exercises, followed by well regulated mountain climbing, invariably produced a marked improvement in the conditions of patients suffering from various chronic heart diseases, and that in certain cases cures resulted.

Cardiac muscular hypertrophy being nature's attempt at cure, hence this is to be the object sought. Cardiac insufficiency leading to dilatation, and is the direct cause of what we term "compensation." The Schott brothers demonstrated their method to stimulate the heart muscle to more powerful contraction, so that the heart wins and is enabled to empty its chamber. The myocardium receives a fuller supply of nutrition.

There are five kinds of baths employed at Bao Nauheim: (1) *Simple brine bath*, (2) *thermal baths*, (3) *thermal Sprudel*, (4) *Sprudel*, (5) *Sprudel effervescent*.

Contraindications are advanced, arteriochlorosis, chronic Bright's disease, aneurysm, bronchial asthma, pulmonary tuberculosis.

The writer thinks that uniformly good results may be had from artificially produced baths, and the following directions are given:

"To imitate the brine bath we begin with a solution of 1 to $1\frac{1}{2}$ per cent. of common salt, and 1 to $1\frac{1}{2}$ to 1000 of chloride of calcium, at a temperature of 92° F. In feeble anæmic subjects who suffer from poor reaction, we may make temperature 33.5° C. Warm baths would rather cause a lowering of the blood's pressure, and at the same time depress the heart's action. Duration of bath varies. Bath given every other day, and $\frac{1}{2}^{\circ}$ C. cooler each day. The strength of both saline solutions should be increased, and have in addition some of Nauheim salts.

"After 5 to 10 brine baths we may give the so-called thermal bath, which contains a large amount of CO_2 gas. It may be prepared by charging the water, or by addition of crude hydrochloric acid and bicarbonate of soda. Bath

should be given at first at a temperature 32.5° C., but no longer than 7 or 8 minutes.

"The thermal effervescent bath may be given after 15 other thermals have been used. This may be prepared as above, only strongly charged with carbonic acid gas. The patient entering during the formation of the gas. Same temperature should be used.

"One precaution is here necessary, and that is to prevent the inhalation of the gas by keeping the patient's head well out of water. In thermal and effervescent baths full immersion causes marked dyspnoea at first.

"The number of baths depends on the vitality, and varies from 18 to 8.

"Following upon bathing, the Schott Resistance Exercises are to be used. The resistance should be such that the patient can readily support and overcome without strain or fatigue. Breathing should be conducted regularly and evenly. The guide to fatigue must be the patient's own statement. Some advantages of the resistance exercises are: (1) They can be given in bed or sitting before bathing; (2) they can be continued indefinitely; (3) they can be modified to suit almost every indication for strength or debility; (4) patients of moderate strength may learn them and do without attendants; (5) they are admirable respiratory developers; (6) they exert a tonic effect on the heart muscle.

"To obtain the best results, a combination of exercise and bath is necessary. In general, it must be admitted, that the baths take up the work when the exercises can go no further.

"Several cases are reported, and they seem to indicate: (1) Artificial Nauheim baths may sometimes be prescribed in advanced cases with remarkably good results; (2) they should always be accompanied by trained assistants; (3) the general results of the treatment are good, adding largely to the nutrition and strength of heart muscle."—*The Medical Record*, February, 13, 1904.

William F. Baker, A.M., M.D.

EXCISION OF TUBERCULOUS MASS FROM LIVER.—Ronel (Minneapolis) excised a wedge-shaped portion from the free border of the liver for tuberculosis. The patient was a woman, aged 42, who had been a sufferer from pain in the right side of the abdomen, and had been "bilious" all her life. No diagnosis seems to have been made, but an exploratory incision undertaken over a sensitive tumor situated midway between the crest of the ilium and the cartilage of the tenth rib. The portion of liver removed was about the size of a goose-egg. Catgut sutures were first introduced around the mass half an inch apart, and tied as soon as the growth had been removed with scissors. This promptly checked all hæmorrhage and the abdomen was closed without drainage. Incidentally the appendix was removed. The patient made a good recovery, and reports, "I am feeling better and stronger than I have for ten years."—*Annals of Surgery*, January, 1904.

Gustave A. Van Lennep, M.D.

THE SYMPTOMATOLOGY AND DIAGNOSIS OF PNEUMONIA IN INFANTS AND CHILDREN.—Dr. W. P. Northrup, in discussing the symptoms of bronchopneumonia in infants before the New York Academy of Medicine, said that the onset was so characteristic that hospital nurses soon learned to detect a beginning case. The child refuses food, becomes drowsy and probably vomits.

In nurslings there is usually stoppage of the ura and vomiting, together with sudden appearance of fever. Very soon the presence of toxæmia is indicated by drowsiness, chilliness, irritability and fever. The most important sign is the change in the pulse-respiration ratio from one to four to one to three. This sign should always lead the physician to examine the lungs.

Next there will be noted diminished respiratory murmur over the affected lung and successively harsh breathing, bronchial voice, bronchial breathing and bronchial whiff. Cough is by no means a constant symptom. The degree of toxæmia is, as a rule, proportionate to the amount of lung involved.

Stupor may be so profound as to suggest meningitis, especially when the neck becomes stiff. In pneumonia, however, the stiffness also involves the shoulders and arms. The presence of a mucous diarrhœa may serve to obscure the diagnosis. Occasionally, pneumonia in early life closely resembles appendicitis.

In speaking of the *pathology* of pneumonia Dr. David Bovaird, Jr., said that partial consolidation of one lobe was more common in children than in adults. Pleurisy varies greatly in amount. Occasionally, small abscesses and gangrene develop. Broncho-pneumonia occurs in about 40 per cent. of all autopsies at the New York Foundling Hospital. Empyema is a comparatively frequent accompaniment of broncho-pneumonia in children. The tendency of modern opinion is to give more prominence to the general infection and to diminish the importance of the local lesion.

Dr. Henry Koplik raised a protest against the use of cold water indiscriminately in young children as an antipyretic. Little children do not react well to cold, and a sponge bath with luke-warm water or a wet pack at 85° F. is both safe and efficient. He objected to steam inhalations and poultices. He also cautioned the young practitioner against the indiscriminate use of aconite and strychnine.—*Archives of Pediatrics*, February, 1904.

C. Sigmund Raue, M.D.

A CLINICAL STUDY OF SIXTY-TWO CASES OF INTESTINAL INFECTION BY THE BACILLUS DYSENTERIÆ IN INFANTS.—An exhaustive study of 62 cases of dysentery in infants is published by La Fetra and Howland, of the Rockefeller Institute for Medical Research, in which these investigators came to the following conclusions:

This form of intestinal infection is common. The shiga bacillus was demonstrated in 62 out of 64 consecutive cases of summer diarrhœa in infants coming under their notice.

These cases embraced every variety of diarrhœal disease, from the mildest to the most severe forms of ileo-colitis. Twenty per cent. were in breast-fed infants.

Serum treatment was tried in some of the cases, but not in a sufficiently long series to give trustworthy data as to its efficacy.—*Archives of Pediatrics*, March, 1904.

C. Sigmund Raue, M.D.

BILATERAL EXCISION OF THE SUPERIOR AND MIDDLE CERVICAL SYMPATHETIC GANGLIA IN EPILEPSY.—Hopkins, Denver, reports five cases of epilepsy operated for him after this method by Freeman. In one of these cases he claims a cure, the patient having gone a period of two years and one month without a convulsion. The patient was a young man, 26 years of age,

a sufferer from epilepsy since 1892, having had as many as fifty convulsions in one day. The operation was done in July, 1901. Of the remaining four cases, one, a man 20 years of age, has gone six months without a convulsion. Another, 33 years of age, a confirmed epileptic, and a subject of epileptic dementia for the last five years, was much improved, having not more than three slight attacks at any one time in intervals of from ten days to two months. The other two cases have been operated too recently to judge of the ultimate result, although in each the severity and number of attacks has been lessened.

The symptoms resulting from the operation and continuing permanently are: Ptosis, contraction of the pupils with paresis, minus tension and receding eyeball. The literature given by Winter is as follows: In all, 213 cases are reported, with 7 deaths from various causes. Of these cases, 91 are too recent or too inaccurately reported for statistics. This leaves 122 cases. Of these, 4 were cured, 17 were "apparently cured," 23 were improved, and 67 seemed but little, if at all, influenced by the operation.—*New York Medical and Philadelphia Medical Journals*, March 5, 1904.

Gustave A. Van Lennep, M.D.

BRONCHOSCOPY.—Schwyzer, St. Paul, reports the case of a woman, 48 years of age, from whom he removed a fish bone from the right lower lobe of the lung through a bronchoscope. The foreign body had been inspired while eating soup some five weeks before, and was giving rise to fever and severe coughing spells. The presence of a large goitre seriously interfered with a bronchoscopic examination through the mouth and larynx. A strumectomy by means of a horizontal incision was done, and the wound sutured, excepting a small opening over the trachea. Two weeks later, under local anæsthesia, the trachea was opened, and the bronchoscope introduced through the opening. After a long search (from 9.40 till 11.55 A.M.), which was facilitated by the use of a mixture of 20-per-cent. cocaine solution and adrenalin, the foreign body was located in the right bronchus, some six inches from the tracheal opening, and was removed by means of forceps. The patient stood the manipulations well, and made a good recovery. The instruments used were the Killian outfit, with the Kasper handle, and the head-light of Kirstein. On account of some trouble with the battery, the operator found he could do very well with an ordinary head mirror and an electric light. Both before and after the operation the patient had inhalations of the following mixture: Tinct. benzoin comp., 50.0; creosote and turpentine, āā 25.0. These inhalations the author has found of decided benefit in all kinds of surgical procedures in the air passages.—*Annals of Surgery*, February, 1904.

Gustave A. Van Lennep, M.D.

STERILIZATION OF THE HANDS AND OF THE VULVA.—In an article in the *American Journal of Obstetrics*, January, 1904, entitled "The Chlorine Technique," Stewart (New York) concludes that the best antiseptic consists of acetic acid two teaspoonsful; chlorinated lime four teaspoonsful; and water one quart. Five minutes scrubbing with this solution after five minutes proper mechanical cleansing has prevented the growth of streptococci, staphylococci and the bacterium coli communis, after the hands had experimentally been contaminated with pure cultures. He regards it as equal in antiseptic power to bichloride 1 to 500. The vulva is to be cleansed with the solution diluted with two additional parts of water.

(The article is fragmentary, and because of the importance of the subject leaves much to be desired; and when some of his friends jocosely refer to the solution as "Stewart's juice," do not let us forget that this chemical has been used before—in fact, many times before, and over fifty years ago. It would be in accordance with the eternal fitness of things if the use of chlorinated lime would ultimately be demonstrated to be the best means of sterilizing the hands, since it was first proposed for that purpose by Semmelweis fifty-seven years ago, although its application as a deodorizing agent had previously been known. With it he made the first clinical demonstration of the utility of sterilizing the hands at all, a demonstration which inaugurated a new era for obstetrics and for operative surgery, though others have appropriated and accepted the glory which was rightly his. The brilliant results following its use are well known to students of medical history, and his achievements in obstetric practice have not been materially excelled since that time.—T. J. G.).

Theodore J. Gramm, M.D.

VOMITING OF PREGNANCY.—According to Pick there is no one theory applicable to all cases of this condition. He favors the idea of it being due to a reflex neurosis, while the anæmia of pregnancy is a predisposing cause. One of his cases seemed to indicate a connection with displacement of the uterus. The intoxication theory is attractive, and the obstinate constipation often present in pregnancy would favor the absorption of toxic matters; still the relatively seldom occurrence of hyperæmesis is not in harmony with the frequency of constipation. In most cases also excessive vomiting usually ceases at once on emptying the uterus, and he thinks it cannot be assumed that the action of toxins terminates at the same moment. For treatment he suggests absolute rest in bed, strictly milk diet at first, then liquid diet in small quantities frequently repeated, and after cessation of vomiting a gradual return to other food. In one case on the appearance of the inclination to vomit he saw relief follow the pronounced extension of the head backwards with the patient in the sitting posture, whereby vomiting could be prevented every time. This procedure probably induces a sudden congestion of blood to the brain and momentarily diminishes the cerebral anæmia, which, according to his opinion, is an ætiological factor in hyperæmesis. He also advises regulating the bowels with enemata. Emptying the uterus is the last resort, though he does not fix the time for performing the same.

Condamin regards hyperæmesis as due to a general intoxication of the system. From this assumption he derives the indication to free the system from toxins by means of subcutaneous or rectal injections of normal salt solution, at the same time giving the stomach absolute rest for eight to twelve days. He gives daily enemata of three or four litres of salt solution, to which a few drops of tincture of opium are added if the rectum shows intolerance. After taking no food by the mouth for several days, some liquid food is administered, followed by a gradual return to the usual diet, at the same time that the rectal injections are continued. The latter are administered lukewarm and so slowly that a half hour is required for the injection of ten ounces.

Champetier de Ribes found post-mortem in a case of hyperæmesis, besides acute nephritis, changes in the liver like in eclampsia. The liver was pale and covered with yellow spots, contained a good sized infarct and numerous subcapsular hæmorrhages. From this observation he concludes that hyper-

æmesis is a consequence of insufficiency of the liver, inducing intoxication of the system.—Frommel's *Jahresbericht*, 1902.

Theodore J. Gramm, M.D.

A STUDY OF NYSTAGMUS.—In unilateral cases, of which few are seen, the movement is nearly always vertical, never rotary or oblique. All nystagmus ceases during sleep. Slight associated movements have been at times observed of the head, of the upper lid, and even parts of the pharynx and larynx—these latter with lateral nystagmus indicates (according to Gower) cerebellar tumor. It has long been known that the oculo-motor centres are acted upon by the equilibrial centres; pressure on the semicircular canals producing nystagmus, usually lateral. Nystagmus has been found associated with morbid affections of the corpus striatum, corpora restiforma and corpora quadrigemina, the fourth ventricle and the cerebellum. It is nearly always found in disseminated sclerosis, and in most cases of Friedreich's disease; is very rare in locomotor ataxia and other diseases attended by tremor.

It is never present in paralysis agitans; is occasionally present in muscular atrophy and multiple neuritis; is often found in syringomyelia and primary lateral sclerosis, and less frequently in the latter stage of severe uræmic poisoning and in marked anæmic conditions.

In diagnosis nystagmus is of great significance, because it shows the presence of more than functional disturbance. A search for it should never be omitted, and should always include upward movement of the eye.—F. S. Crocker (Chicago), *Jour. of E. E. and Th. Diseases*.

William Spencer, M.D.

CHARACTERISTICS OF OCULAR HEADACHES.—The following conclusions have been tabulated as to the results of eye-strain induced by civilization:

1. Forty per cent. of all chronic headaches and 80 per cent. of all frontal headaches are partially or wholly of ocular origin.
2. Their site, in order of frequency, is (a) supra-orbital, (b) deep orbital, (c) fronto-occipital, (d) temporal, or (e) a combination of these.
3. Near work is their chief exciting cause.
4. Shopping, theatre- and church-going, as well as riding in street cars and railway trains, often induce it.
5. The letters and lines in reading and notes in music blur, run together and get "mixed up."
6. The patient with ocular headaches is generally astigmatic or far-sighted, or has some weakness of his ocular muscles.
7. Patients with ocular headaches often complain of lachrymation, photophobia, foreign body sensations, specks floating before the eyes, itching and burning of the lids, redness of the eyes, etc.
8. The signs of eye-strain above mentioned may be present and the headaches of ocular origin, although the vision is normal, and there is no manifest astigmatism. The patient in such a case overcomes his hypermetropia or astigmatism by continuous muscular effort.
9. About 10 per cent. of all ocular headaches are incurable, and some of these are hereditary.—*Med. Rev. of Rev.*

William Spencer, M.D.

ILL-EFFECTS OF TOO EARLY USE OF THE EYES FOR READING.—The effort to focus the eye for small objects near at hand is greater than that in later

life; not being accustomed to reading, the child can't comprehend a word, line or sentence at a glance, but must need study each letter. The frequently eager brain of the child, and the attractive, exciting kind of literature produced for the young, often induce the child to spend time reading that would be better occupied in healthful outdoor exercise. The author closes by saying: Everything else being equal, I would prevent the child from learning to read until he was at least 8 years of age; I would allow no reading outside of school hours until the age of 11, and would then select his reading, so that what he read would do him some good. There are plenty of books nowadays dealing with facts in nature and in history which are quite as interesting as story books and are vastly more profitable reading.—C. J. Swan, M.D. (Chicago), *Jour. of E., E. and Th. Diseases*.

William Spencer, M.D.

IODINE LOCALLY TO CORNEAL ULCERATIONS.—The author has treated over 200 phlyctenular and traumatic cases, but his experience has led him to the conclusion that it is especially adapted to indolent ulcers. It lessens, rather than increases, scar tissue. He prefers the official tincture. A stop speculum is used; the cornea thoroughly anæsthetized; the ulcer curetted, well dried and touched with iodine thoroughly, yet with care that no other spot is reached by any iodine. The eye is then washed out with sterile water or boric-acid solution and treated as a recent traumatism.

A patient aged 19 years; phlyctenular corneal ulcer 2 mm. in diameter and 3 mm. from limbus, involving half the thickness of the cornea. Cauterized under cocaine, washed with boric-acid solution and atropin instilled. Ordered to bed in dark room with boric-acid solution and atropin locally. The inflammation subsided in five days, but recurred a couple of days later. Cauterized again and cocaine substituted for the atropin with heat every three hours. Immediate improvement, and by the end of the fourth day the ulcer was but 1 mm. in diameter. It soon relapsed to the former condition, greatly aggravated, and sloughing of the initial sore was greatly evidenced. After many vain attempts to arrest the trouble, iodine was determined upon and applied as above, by means of a few fibres of absorbent cotton tightly twisted on a probe, the excess having been wiped off with a piece of cotton. The eye was washed with saturated solution of boric acid and the patient put to bed. At the end of twenty-four hours the ulcer had completely healed.—J. Lawton Hiers (Savannah), *Phila. Med. Jour.*

William Spencer, M.D.

CHRONIC TRACHOMA CURED BY THE X-RAY.—H. M., white, æt. 23, had granulated lids for nine years; much pain, lachrymation, muco-purulent discharge, intense photophobia. Lids thick, reddened, their mucous membrane thickened, congested and studded with typical trachoma granules. Used Heinde's 20-inch coil, modified Wehnalt interrupter giving 2800 interruptions a minute: direct current 250 volt, $2\frac{1}{2}$ amperes. Began through closed lids twelve inches away, for three minutes every ten, then five, days, then tri-weekly; spark-gap one-sixteenth of an inch. These caused excessive lachrymation, which finally was not excited by them. The time of exposure became five minutes, eight minutes having caused dermatitis; the spark-gap increased to one inch. After the sixth treatment there was great improvement noted; by the twentieth one eye, and by the thirty-fifth the other, was entirely free

from trachomatous granules. There is no photophobia; the lids, although a little inflamed, are not thickened; the mucous membranes, while still red, are free from discharge; she uses her eyes constantly without discomfort.

Will not acute cases respond more readily?—H. F. Cassidy and F. C. Bayne, *Jour. of E., E. and Th. Diseases*.

William Spencer, M.D.

SOME OF THE MORE UNUSUAL RESULTS OF MOVABLE KIDNEY.—Noble, Philadelphia, calls attention to what he considers unusual symptoms of this affection calling for operative interference. The most striking local result he considers to be torsion of the kidney upon its vessels and upon the ureter, producing either acute congestion of the kidney or acute hydronephrosis, or both, and accompanied by attacks of severe pain, nausea and vomiting, which are only relieved by the replacement of the kidney in its proper position. Such an attack is known as Dietl's crisis. Another result of torsion is the production of hæmaturia, which may be transient or more or less permanent. The two local symptoms that have most frequently come under the notice of the author are a sense of dragging in the region of the kidney and the presence of a movable tumor appreciable by the patient in the abdominal cavity, usually on the right side. Another symptom which deserves attention is the presence of albumin and casts, usually hyaline, in the urine, the result of congestion of the kidney, due to interference with its circulation. This condition would probably lead to chronic nephritis. The author reports eight cases operated on by himself. In one the kidney was found tubercular, and was accordingly removed. In another case of hydronephrosis the ureter was atrophied to such an extent as to necessitate its removal. The remaining cases were treated by the usual operation of nephrorrhaphy.—*New York and Philadelphia Medical Journals*, February 20, 1904.

Gustave A. Van Lennep, M.D.

A NEW DEVICE AND METHOD FOR INTESTINAL ANASTOMOSIS.—Carr, Washington, adds still another method to our already numerous procedures of intestinal anastomosis. This device consists of small clamps, made of silver, very simple in construction, and provided with blunt teeth to prevent slipping. In appearance they resemble somewhat the well-known "Agroffes de Michael." A specially constructed pair of forceps is used for their application, though this instrument is not absolutely necessary. The clamps are applied from the inside of the intestine, grasping both approximated edges of the gut and securely holding the peritoneal surfaces against each other. A diagram accompanying the article shows an anastomosis made with eleven clamps side by side, and a small opening closed with simple Lambert sutures. The author has used the method in one case, where he resected five inches of gangrenous gut for strangulated hernia. Most of the clamps were recovered between the sixteenth and twenty-first days.—*International Journal of Surgery*, March, 1904.

Gustave A. Van Lennep, M.D.

ÆTIOLOGY OF ISCHURIA IN RETROFLEXION OF THE GRAVID UTERUS.—Reed has pointed out that retention of urine during several pathological conditions in women is not usually caused in the manner frequently stated, and summarizes the points made in his paper as follows:

1. Retention of urine in retroflexio-version is not due to direct compres-

sion of the urethra, or neck of the bladder, whereby the lumen is mechanically closed.

2. It must be regarded as a form of "pressure paralysis," due to interference with the nerves supplying the bladder in some part of their course.

3. Compression of the principal motor nerve (pelvic nerve) is the most common source of retention. The parts most subject to pressure is the pelvic ganglion of the uterus, although the nerve may be affected in any part of its course, either near its distribution to the bladder, or close to the sacral exit of the component fibres.

4. Compression of the sensory nerves, either in the course of the nerve, or peripherally (in the bladder), may also rarely produce retention.

5. Both afferent and efferent filaments may be affected simultaneously in a given case of retention, but the order is usually consecutive.

6. Pathological conditions of the pelvis and abdomen which irritate the sensory fibres of the bladder produce the so-called "irritable bladder."

7. Retention of urine post-partum and after laparotomy for tumors is due to diminished intra-abdominal pressure, weakness of the abdominal muscles from over-distention and the dorsal decubitus.—*Amer. Jr. Obs.*, February, 1904.

Theodore J. Gramm, M.D.

GONORRHOEA.—Attention has again been called to the far-reaching evils of gonorrhœal infection, by Johnson, particularly with reference to the difficulty of determining when the marriage of a man once the subject of this disease may be sanctioned by the physician. The importance of the subject demands thoughtful attention. His recapitulation only can be given here:

1. The opportunities for acquiring gonorrhœa are very numerous, there being, at the least calculation, half a million women in our country alone from whom it is possible to acquire it some time, and probably many times, during their lives.

2. That these opportunities are not neglected is shown by the statements frequently met with by the writer during his recent investigation of this subject, that fully 90 per cent. of men do acquire it.

3. The very serious pelvic complications possible to all women, wrecking their health and shattering their lives.

4. The great number of abdominal sections required in the treatment of these complications which necessarily leave the women seriously mutilated, if not absolutely unsexed.

5. The dangers of puerperal infections.

6. The inexpressibly sad cases of ophthalmia neonatorum, resulting in from ten to fifteen thousand cases of infantile blindness annually.

7. The complications following gonorrhœal infection in men.

8. The great difficulty of cure after reaching the chronic or last stage in the posterior urethra.

9. Our great responsibility in advising a man, whom we have treated for gonorrhœa, that he is so thoroughly cured that he can marry without danger of infecting his wife.—*Amer. Jr. Obs.*, February, 1904.

Theodore J. Gramm, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

ANÆMIA AND ITS TREATMENT.—W. Henry Wilson, M.D., in *Clinique*, after giving an excellent *resume* of the varieties of anæmia and its causes, refers to the two principal remedies for this affection: Iron and arsenic. It must not, therefore, be supposed that these two drugs comprise the whole therapeutics of anæmia, because anæmia is not a disease, but rather a symptom of disease; hence, it should not always be treated *per se*. It has, however, been discovered by study and experiment that iron controls the production of hæmoglobin, and that arsenic controls the production of the bodies of the red cells. Iron is very valuable in those anæmias which show a decreased hæmoglobin, with red cells normal; and when the red cells themselves are markedly low, then arsenic is the supreme remedy. The count of the red cells, then, becomes a reliable means of determining the need of this latter remedy. Dr. Wilson prefers organic iron, and prescribes usually hemagallol.

IS LOBAR PNEUMONIA FAVORABLY INFLUENCED BY MEDICINAL TREATMENT?—A prominent member of the "regular" Chicago Medical Society quite recently remarked, at a meeting of that organization, that "drug-treatment is useless in cases of pneumonia." "As far as medicines are concerned, the medical profession can be of no assistance in the fight against the ravages of this disease." "He also thought that the sooner the public knew of this, the sooner the profession would set to work to discover some specific to save pneumonia patients." This statement is one not calculated to bring joy to the hearts of the dear public and may, to some extent, explain the large mortality of the last few months. The energetic editor of *Clinique* has canvassed the homœopathic profession of Chicago, with a view to ascertaining whether they were systematically obtaining money, under false pretense, from their pneumonic cases. Strange to say, the homœopathic physicians all agreed that internal medication *was* useful and *did* cure pneumonia. As each side knows what it is talking about, and has abundant proof to substantiate the truth of its position, things look bad for the regulars. It surely is strange that a school of practitioners, teaching the fallacy of specifics, continues to search for something which they say does not exist.

THE TREATMENT OF GASTRECTASIS AND CHRONIC GASTRITIS.—Dr. H. V. Halbert considers that the treatment of dilatation of the stomach has many points of similarity compared to the treatment of chronic gastritis. There-

fore, he considers the treatment of these two affections under a single heading. After referring to the great usefulness of *lavage* in cases of dilated stomach, and to the necessity of a bland, liquid diet in the same affection, he mentions a number of remedies which have been proven to be useful.

Nux Vomica.—Stimulates the gastric activity by its action upon muscular fibres, as well as the gastric glandular activity. Hunger, with aversion to food, retching, tendency to vomit, epigastric fulness, water-brash, are good indications for this remedy. It is a mistake to suppose that nux will cure at once, and the remedy is often ineffective because not administered long enough.

Arsenic and chininum arsenicosum suit a debilitated and impoverished mucous membrane, as well as the toxic condition resulting from faulty absorptions following the fermenting of the food and the unhealthy state due to catarrhal exudate. The cachexia and anæmia produced by an altered blood state is present here. Arsenic has a deeper action than nux.

Iris versicolor has been a very useful remedy in his practice. Its sphere of action is mostly confined to the liver, and hepatic congestion is at the bottom of many cases of gastric catarrh. This remedy has a solvent action upon the bile; and, when constipation and jaundice are due to hepatic congestion, it will empty sufficient bile into the intestine to relieve both liver stasis and intestinal incompetency. The stomach symptoms of iris will be defined as: Loss of appetite, gaseous eructations, vomiting of sour or bitter fluids; while jaundice, constipation and hepatic pains are invariably complicating symptoms.

Hydrastis Canadensis.—Suits advanced stages of chronic gastritis, when the glandular structure is exhausted from atrophy or prolonged, low grade inflammation. The atonic dyspepsias of old people gives a prompt response to its internal use. When the degeneration of gastric tissue has reached the stage of pyloric ulceration it may be useful.

Argentum Nitricum.—Represents a condition of prolonged debility, in which gastric function has been impaired for a long time, with possibly connective tissue increase. Old cases which do not respond to other medication. Such patients vomit large quantities of yeasty fluid, and the extreme distension is relieved only by violent and explosive belching of gas.

Antimonium Crudum.—Indicates a more indolent progress of the gastric inflammation, and is defined by the thickly coated and dirty grayish coating of the tongue. The breath is offensive.

Antimonium Tartaricum.—Covers a class of similar symptoms, but there is a greater tendency to the vomiting of large quantities of mucus.

Bismuth.—May be considered under the same head, but the catarrhal gastritis is recognized by the greater amount of pain, and the vomiting is accompanied by much more pain.

Bryonia.—Is a remedy too frequently neglected in chronic gastritis. Headache, a dry mouth, thirst, and bitter or sour eructations are always in evidence. Pain in the stomach after eating is an ever present symptom. Such patients eject solid food, while liquids are agreeable.—*The Clinique*.

RECENT ADVANCES IN THE STUDY OF HEART CONDITIONS.—Dr. M. E. Fitch, in an interesting paper upon this topic, refers to many important and practical facts that are often overlooked. Referring to the condition of the

heart during pneumonia, he mentions that when there is marked obstruction of the pulmonary circulation, the right heart has far more work to do than the left heart. Venous accumulation follows, which means a corresponding arterial deficiency. The arterial pulse does not always show the peril. Should the pulse be small and weak, it is due largely to the fact that the left heart does not receive enough blood from the lungs to distend the arterial system. Lack of blood, rather than loss of propelling power, is the difficulty. If we could feel the pulmonary artery, we should receive vital information. We cannot do this, but we may listen with our stethoscope over the pulmonary valve. A clear, sharp recoil is favorable; a sound becoming weaker and weaker indicates that the muscular power of the right ventricle is exhausted. The author speaks against over-feeding the patient during such a critical period as likely not to keep up strength; but to really increase the embarrassment of the circulation. He refers to the usefulness of bleeding, of nitroglycerin and of alcohol, in such emergencies.—*Medical Times*.

LYCOPodium.—Dr. W. J. Hawkes thinks that this remedy will always benefit the patient having three or more of the following symptoms, no matter what the ailment: 1. Aggravation of all symptoms between the hours of 4 and 8 P.M. 2. Pain in the renal region aggravated by undue retention of the urine, and relieved by passing the urine. 3. Reddish, sandy deposit in the urine. 4. Dyspepsia, with sensation of fulness and satiety after eating but little, although the meal has been begun with good appetite. Audible rumbling of gas in the left hypochondrium. 5. Fan-like motion of the wings of the nose, when there is no sufficient pathological cause.—*P. C. Jour.*

TREATMENT OF TUBERCULOSIS OF THE LARYNX.—Dr. Herbert W. Hoyt, M.D., pins his faith, in this affection, to two remedies. Many remedies have been suggested in the books, but arsenicum iodide and apis have stood the test of time, while the others have failed. He gives the iodide of arsenic for the diathesis and the apis for the œdema.—*Hom. E. E. and T. Journal*.

POISONING FROM EATING CASTOR BEANS.—Dr. Burreughs reports a case where after having eaten two castor oil beans symptoms of poisoning set in. There was bellyache, headache and most violent vomiting, with a cold sweat on the patient's forehead. The pulse and breathing were rapid and fleeting, and the pupils dilated. The fluid pumped up from the stomach contained blood and mucus. The patient soon recovered.—*British Medical Journal*, October 3, 1903.

ON OSMODIUM IN FEMALE COMPLAINTS.—As prominent leaders we find the following quite frequently suggestive: Violent uterine pains, often of a bearing-down type, or spasmodic, crampy, similar to the pains induced by exposure to cold during menstrual period. Sensitiveness of uterine region < from pressure, even contact of corset or clothing. Utero-ovarian pains, latent for years, tend to recur. Dull, heavy aching, or gradually increasing, throbbing pains in ovarian regions. Ovarian pains, traveling from side to side, leaving parts tender and sore, < by pressure, Utero-ovarian pains > by loosening clothing and lying upon back. *Loss of sexual desire* (this symptom even noticed in males; hence useful in cases of *abusus sexualis*). Constant sensation, as if menses would appear, which are premature, profuse, protracted.

Leucorrhœa, cream-colored, profuse, fetid, excoriating. Pruritus vulvæ < scratching and contact of leucorrhœal discharge.

Uterine cramps have frequently been greatly mitigated by hourly doses of the tincture.—*Allgemeine Hom. Zeitung*, November, 1903.

HYOSCIN IN MASTURBATION.—French psychiatrists have tried hyoscin injections in mental diseases with marked masturbatic tendencies. The results were highly gratifying in 12 cases out of 19, and persisted eight months at the time of this report; whereas 6 cases displayed only transient benefit, and 1 case showed complete failure.

The doses employed ranged from $\frac{1}{2}$ mgr. to 2 mgr. *pro die*; generally commencing with $\frac{1}{4}$ mgr. and gradually increasing the dose. Results manifested themselves within three to four days; however, to render the effects permanent, it was advised to continue the injections with the utmost caution, and in decreasing dosage for twelve to fifteen days. Poisonous effects strongly resembled atropine. No cumulative action was observed. It is believed that hyoscin acts upon the spinal genital centre, and can induce complete transitory impotence.

These results tally beautifully with what has been so familiar to the homœopathic school for many years. A cursory survey of the provings of hyoscyamus shows that libido sexualis is a red strand of the remedy, and has led to the gratifying employment in many sexual and moral disorders.—*Allgemeine Hom. Zeitung*, February, 1904.

SECALE CORNUT. IN DIABETES INSIPIDUS.—E. Pribram submits his clinical observations of ten cases of diabetes insipidus (idiopathic form) in the *Deutsche Archiv für Klin. Med.* Pronounced improvement, though no cure, followed the use of ergotin.

Wolff also claims beneficial effects in several cases treated with secale cornut. (infusion, 6:200; 1 tablespoonful two to three times t.i.d.).

In our own ranks, Dr. Stiegele lately obtained very favorable results by the homœopathic use of secale (2x dil.), virtually given on the three symptoms of black colored tongue, polydipsia, polyuria, which are found in the pathogenesis of the remedy.

DIURETIN AND URINARY ORGANS.—Dr. A. Mosaner (Karlsbad) has proved this agent on 21 persons presenting healthy kidneys. Four g. were daily administered; as a rule, medication was not administered for more than one day. Pot. ferrocyanide and heat tests were used for testing for albumin.

Ninety urinary analyses showed hyaline casts in 20 cases; slight albuminuria in 8 (3 with, and 2 without, casts); so that only 4 persons showed casts without an accompanying albuminuria. The casts were only present transiently, and always of the hyaline type.

From these experiments it can be fairly deduced that diuretin excites a more or less severe degree of renal irritation, and that the protracted use of this drug in large doses may induce evil results, especially in those cases presenting a history of renal disease.

It may be worthy of trial in cases of albuminuria, if employed in minimum doses, according to the homœopathic principle, and based upon the pathogenetic effects.—*Wien. med. Wochenschr.*, 27, 1903.

ROUND GASTRIC ULCER.—Dr. Boesser, in his article on "The *Ætiology and Therapeutics of Round Gastric Ulcer*" (*Allgemeine Hom. Zeitung*, January, 1904), speaking of the medicinal treatment of this affection, observes a close similarity, in fact, almost a general identity, between the old school and homœopathic remedies used. For example, arsenic, argentum nitric., belladonna, atropin, bismuth, cocaine, ferrum, are held in great esteem by both schools. Homœopaths suggest arsenic, in dilution, quite early during the disease, whereas the old school, who employ it in large doses, relegate it (like iron) to the later stages.

He says: "In looking over our too comprehensively involved and oft contradictory therapeutic schemes of this affection, one is frequently bewildered and disheartened by their impractical nature, and must honestly admit that in many cases the simplicity of the old school therapeutics appeals forcibly to one, as is evidenced in their combination of an astringent with an anodyne, viz., bismuth with morphia, or codeine, or cocaine, or belladonna extract, or the application of one of these agents singly (after all, nothing more than homœopathy pure and simple).

Fortunately, a more practical tendency is asserting itself of late in the homœopathic school; selecting rather a few remedies with exact clinical and not too individually colored indications.

Especially is this noted in the therapeutics of Hengstebeck Puhlman, from whom is taken the following excerpt:

"For the frequent, violent pains attending gastric ulcer, no doubt belladonna, or its alkaloid atropine, merits first attention, simply acting as an anodyne, without the slightest curative influence upon the ulcerative process; 4th potency generally recommended by us.

"Sulphur seems to exert a special influence upon the ulcer itself, and often accomplishes telling results, though personally arsenic (5th dil.) has found more frequent application. At times, the frequent alternation of these two remedies greatly mitigates the intractable pains. Very severe gastric ulcers, with perforating tendency, may require phosphorus, especially if coffee-ground ejecta are present.

"Argentum nitric. has often been effectually used to control the pains, but must be given in lower potencies.

"Bismuth is specially called for by nervous gastric pains, and vomiting following the least contact of food with stomach.

"Lastly, carbo veg. in higher potency gives favorable response when pains occur more markedly when stomach is empty, and are consequent to irritation of ulcer by the hyperacidity. The attending catarrh may require one of the following: Nat. mur., nux vom., puls., ars., carbo veg., sulphur, lycop."

AMMONIUM BROMIDUM IN SEVERE TYPES OF WHOOPING-COUGH.—Fredrick Kopp, to whom we are indebted for many interesting reports of unusual cases, relates that his youngest daughter, aged two months, contracted pertussis. It turned out to be the severest case that the doctor had ever seen. Violent paroxysms, the child's face became almost black, eyes protruded and the infant seemed on the very verge of death from suffocation. Child refusing milk was kept alive upon weak brandy and water. Every one who reads the record of this case will readily recognize the gravity of the situation and will recall similar occasional cases in which remedies, usually successful, failed

to bring the response. The doctor prescribed in succession: Acon., dros., cuprum, antimonium, castanea, ipecac., bryonia, spongia, nux. At last, the idea occurred to try one of the bromides. Thereupon, 24 grains of ammonium bromide were dissolved in a mixture of 4 drachms of syr. tolu, and enough water to make a 4-ounce mixture. A teaspoonful of this was given occasionally. The medicine acted like a charm. No criticism can be offered upon this prescription. The case was an exceptional one, and in such cases the physician is glad to avail himself of any therapeutic expedient that promises relief. Nevertheless, after considerable experience, we still believe that such cases can be matched by a similitum that will cure. The greatest difficulty lies in our inability to get from such a young child anything like a perfect picture of the remedy. We lack data, because we cannot get symptoms. Those that we observe are not sufficient. In just such a recent experience, the only things that we could observe were that during each paroxysm the child seemed to have a tonic spasm of the muscles of the chest; so that respiration was completely arrested and cyanosis extreme. Suffocation seemed imminent, despite all efforts to start breathing. Cuprum aceticum 2x cured at once, after failure of drosera, corallium, bell., and ipecac. The author recommends, in *Hom. World*, the use of the bromide in such cases.

CHLORIDE OF AMMONIA IN ENLARGED PROSTATE.—George W. Homsher, in *Medical Gleaner*, says that he relies upon the chloride of ammonia in all cases of enlarged prostate gland. It will not disappoint, if continued long enough. Two or three months' treatment seems necessary. Half an ounce of the drug is dissolved in 4 ounces of simple elixir. A teaspoonful given, in wineglass of water, three times daily.

KALI BICHROMICUM AFTER INTRANASAL WORK.—A. C. Peterson, M.D., remarks that occasionally, when apparently all obstructions to free respiration are removed from the nostrils, and the conditions immediately after the operation appear eminently satisfactory, it will happen in a day or two, perhaps within a few hours, that one nostril previously open will close and seem hermetically sealed. This complication has arisen, even when the swelling following the operation has yielded to a point where a fair estimate may be had of the completeness of the work by actual observation. Time and again, entire relief has been attained by the application of a solution of *kali bichromicum* introduced, upon cotton, into the troublesome nostril. The process of shrinking and resolution is markedly aided by the activity and efficiency of this powerful drug. At times, a saturated solution is required to bring about the desired results, and again a solution of about a 2 per cent. strength will suffice. The same drug, locally applied, also proves of marked curative value in cases of ulcer upon the nasal mucous membrane. Quite recently, an ulcer upon the cartilaginous septum, which was causing troublesome hæmorrhages, was cured by this remedy within a few days.—*Pacific Coast Journal of Homœopathy*, for January.

THE PARALYSES OF DIPHTHERIA.—Dr. N. C. Haldar, in *Indian Hom. Review*, says that in a very serious case of diphtheria which recovered, so far as the throat and septicæmic states were concerned, on merc. cyan., he found that zincum phos. 6 cured the paralysis of the muscles of deglutition, while causticum 30 removed a paralytic condition of the lower extremities which interfered much with locomotion.

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ARSENIC IODIDE IN THE TREATMENT OF GENERAL NEURASTHENIA.

BY WILLIAM F. BAKER, A.M. M.D., PHILADELPHIA.

(Read before Germantown Homœopathic Medical Society, February 15, 1904.)

GENERAL neurasthenia is a term which has come into use to represent a condition of the nervous-system made manifest by many and varied symptoms. Generally speaking, it may be said to represent a "starved" condition of this system, resulting in lack of tone and vigor in the discharge of nervous force. *Fatigue* is the by-word of the condition and is incident on the slightest exertion.

This class of cases represents perhaps the largest majority of our work as practitioners, and we in turn have been prescribing nerve tonics and nostro compiled in our manufacturing chemical laboratories, often neglecting the implicated homœopathic remedy. These patients are ever the annoyance of the general practitioners, and weary and drag out many an office hour because we are wont to designate them as "nervous," and let it go at that, when the fact remains that the more this class of cases is studied the more interesting they become and the more we can do for them. They may be converted from the grumbling class to the most appreciative by a careful study of their symptomatology. A careful individualization is quite necessary, as the so-called "nerve tonics" either aggravate or only temporarily relieve. Many of the cases being particularly distressed by long continued tonic treatment. In general, the therapeutics must be governed by the individual case, but it will be the

intention to point out just which class of cases respond quickest to the remedy about to be studied. In the study of the relationship of the drug to the condition it might be well to enter a little further into a description of it. This condition of diminished nervous energy has also received the names of "*nervous prostration*," "*nervous exhaustion*," "*spinal exhaustion*," and "*irritable spine*," and is made known by subjective symptoms only. It has been very nicely dubbed the American disease, for true it is that we follow our vocations with greater vivacity and, at times, with less deliberation than do our fellow-Europeans; but what we lack in pace we conserve in the emotion, hence the folly of this misnomer. The people of modern Europe are especially liable to this complaint, and with increasing rapidity it is becoming universal. We must not lose sight of the fact that man has a certain amount of "*nervous force*" or "*energy*," and that if used in one direction or in another it is dissipated, and the result is the same in either case. There is also an amount of "*energy*" which can be called reserve force or energy; this is that energy a man uses under forced condition of his will and the use of which is most telling on his health for which, as age advances, recuperation is slow. During youth, recuperation is active and advances up to middle life when it begins to wane, and it is upon this reserve force that the stresses of our modern civilization make their greatest impression, hence we see so many nervous "*breakdowns*" in middle life. We expend this nervous force now in this direction and again in that, seeming to lose sight of the fact that we are drawing from one and the same account, and that as soon as an extra call is made, then, and not till then, do we look fairly in the face the fact that our reserve is not equivalent to the task and failure is imminent. This, then, briefly reviews the steps leading to this common condition. Do we with just frequency think that this nervous mechanism could be the seat of disease, with just as accurately defined symptomatology as that kidney over which we have just spent one hour or so analysing? The nervous mechanism is the seat of the disease of which we are speaking and its symptomatology is clearly defined. With great haste we welcome every new and interesting clinical instrument to aid us in diagnosis, and if we can but ask you to add to your diagnostic outfit a few questions on the nervous-system, then will this paper have accomplished its end.

General neurasthenia may be divided into (1) Cerebral; (2) Spinal; (3) Sexual; (4) Symptomatic; (5) Associative varieties; each one having its peculiar symptoms and conditions, which we cannot enter into at the present. The diagnosis must be made on the peculiar combination of mental and physical symptoms which have as attributes "lack of energy" and irritableness, "motor weaknesses," sensory disturbances, symptoms of gastro-intestinal atony, backache, headache and insomnia.

The selection of a single remedy in this manner has its objections, for we shall leave no room for differentiation or comparison, but the indications will be brought out and a pictured relationship of the drug with these morbid states described. If we could but take our remedies *ad seriatum* and subject them to clinical study in this manner would we not have more faith, for then seeing would certainly be believing. Again in offering you a single remedy it is not with the assurance that this is the only thing, but simply to give you the result of our investigation as far as they have gone. Many of our familiar remedies are being still observed and observations recorded in the work of which this is a part. In presenting to you a drug such as arsenic, I am perhaps being criticised by not a few practitioners who do not use the drug in any form. One practitioner telling me that in forty years of practice he had never used one grain of arsenic or any of its compounds. The arsenic iodide is a drug that is not by any means new in clinical medicine, for it has been used by both schools and our clinical investigations prove *alike* the statements made by the authorities in each. The clinical application of the remedy, however, has been greatly neglected, and it is for this reason that I wish to present it this evening.

Arsenic iodide, *arsenicum iodatum*, *iodide of arsenic*, is an orange-red crystalline solid, quite soluble in water and wholly volatilized by heat. It is made by the combination of arsenic with iodine in the presence of a gentle heat. The substance has a great tendency to decompose, iodine being set free, oxygen being absorbed and arsenic set free. In its effect on the economy it must then resemble the action of arsenic plus that of iodine. Now it has long been recognized that the values of an iodide is enhanced by the presence of arsenic and *vice*

versâ, the value of arsenic enhanced by the presence of the iodide, hence a dual action. Too much attention cannot be paid to the physiological action, but what concerns us most is its therapeutic application. Summing up the action of the remedy we may say that it affects primarily the digestive system, increasing the appetite and bodily nutrition. Gastro-intestinal functions are greatly increased and peristalsis quickened. It closely resembles arsenic in that it is readily absorbed by the blood, lessening the excretion of carbonic acid gas and urea, and may be said to exert a great influence in preventing retrograde metabolism. The ability of the remedy to check waste and increase nutrition is then the first keynote to us in the selection of it. Its next most important action to us this evening is the readiness with which it affects the nervous-system, not only in nutritional changes, but in its ability to stimulate and excite nervous impulses. This general tonic effect is made known by a general feeling of excitation, designated as a feeling of "well being."

The remedy is necessarily a quick acting one owing to the presence of the iodine, for, as with all iodides, their presence may be detected in the saliva after a short time, but the action when once started reaches over a considerable period of time, but it does not seem to have the cumulative poisonous effect which is so common to arsenic alone, and which makes us all somewhat fear its administration. The next step in its action is its ability to affect the arterial system in the removal of sclerotic deposits. This idea has been advanced by the French school when they teach with Prof. Heuchard that the condition of sclerosis, particularly of the cerebral vessels, can be arrested by the use of the iodide of arsenic, the morbid products removed and the integrity of the vessel restored. In looking over this last statement, is its significance not apparent, and does it not give us an important keynote or guiding symptom for the use of this remedy in the neurasthenia dependant upon sclerosis of cerebral vessels, heart or kidney? These are facts gleaned from the enemy's territory. Again, as to its ability to affect the brain and nervous-system, senegin maintains the remarkably good results of the iodide in various inflammations and inflammatory products of the brain and its meninges. That the remedy has a positive nutritive value is

borne out by many good observers. It is this action that has placed the remedy at the head of the list in the treatment of all wasting conditions, particularly those associated with any glandular involvement. Not only do the tissues in general take place in the general improvement, but this is particularly so in the case of the nervous-system. Looking at the remedy then from all sides, we see that it has a particular relationship to the nervous-system and its nutrition, and this is one object to be sought in the treatment of all nervous affections. The remedy, both in its action and in its therapeutic application, covers entirely a well-defined case of general neurasthenia. It would be needless to further dwell on the constitutional effects of this remedy, and it will suffice if we say that its value as a constitutional remedy is greatly enhanced by the presence of the iodine really doing all that would be required of an iodide used for the tonic effect.

The case of neurasthenia calling for the iodide of arsenic would be one in which muscular weakness is pronounced. The weakness is apparent in all movements tiring the patient and causing great irritability. Walking is attempted at first with great vigor, followed very closely by a tired, fatigued sensation, particularly in the back and extremities, so that sustained effort is impossible and the patient is compelled to rest. The weakness is so pronounced that a tremor of the hands makes its appearance, but not, however, unless the case has been of long standing. Following upon any exertion there is trembling of the knees and hands. In a case of this kind we have all the tendon reflexes at first exaggerated, and after repeated attempts to elicit them they gradually disappear. This takes place only from sheer exhaustion. Again, repeated attempts to elicit the reflexes ends in a general nervous state. Following then upon any work, be it mental or physical, the most complained sensation is fatigue, and the thought that they would like to do, but are entirely below the par value of their strength, renders them universally irritable. Headache is always present and is of a pronounced type. The pain may vary as to time and character, but whatever its peculiarity they all are aggravated by any attempt at mental labor. Particularly is the headache increased on using the eyes. I cannot pass this point without a word concerning refractive errors and

their causing headache. It will explain the fact that many well refracted eyes do not relieve headaches, as we would expect, and it is because of the underlying neurasthenic condition which must be removed. It is our daily experience to have referred to us cases which under the very best refraction do not improve, but when the neurasthenia is treated recover and headache disappear. This is not to be construed as at all derogatory to the correction of refractive errors, for they are a most potent cause of general neurasthenia, but before sending your cases for refraction see to it that the neurasthenia is treated.

The headache is mostly occipital in position, but it may be temporal or vertical. It is the headache described as at "the base of the brain" and is quite commonly associated with a crackling sensation in the ligaments and muscle of the neck. The character of the pain varies, but in general it may be best described as a dull aching soreness, with a sense of weight as though they were unable to hold the head erect. The headache is always associated with great irritability.

Backache is a very common symptom of this class. The same sense of weight and oppression makes its appearance. This sense of weight and oppression in the back is always made worse by any attempt at motion, and is accompanied by a soreness and tenderness along the spine. Great relief is experienced when the back is supported or held. The tenderness of the spine is quite superficial and it is not distinctly localized. Sensations of heat and cold, of numbness and tingling or crawling are often complained of. The special senses also share in this symptomatology. Hearing is the first to be affected, and this is made manifest by the intensification of all sounds. This is not a real intensification, but the sound in its transmission to the auditory centres is magnified and received as painful sensations, causing the patient to jump or start, and for this reason all loud sounds are avoided. This is a pure neurosis. Symptoms of the gastro-enteric tract are also prominent, and chief among them is nervous indigestion. The symptoms point to an atonic dyspepsia and dilatation of the stomach. The appetite is capricious and distress after eating is prominent. In the more advanced cases there is a deficiency of the hydrochloric acid, and if the cases continue the acid

disappears from the gastric contents. There is a gnawing desire for food, and after food has been taken it causes a general depression and distress in the epigastrium and fermentation in the intestines, so that colicky pains result, and there follows eructations of large quantities of gas.

The circulation is affected, and there are cold hands and feet and symptoms referable to the gastric disturbance. Palpitation and præcordial distress also from any muscular excitation. This may also be particularly worse after a meal, but relieved by the eructation of a large quantity of gas, and may be associated with a profuse sweat with an anxious expression to the face.

The urine usually is scanty and of high color, partaking of the same general character as all other secretions as to quantity, *viz.*, decrease. Phosphates and oxalates make their appearance, and if the condition is one that has progressed to any great extent we have the presence of albumin and casts. This is, however, present only in the advanced stages.

The sexual organs enter also into the symptomatology, but their symptoms belong to another division of the subject called the "sexual neurasthenia." The mental state of these patients is particularly interesting and are characterized by two most important characteristics, irritability and fatigue. These symptoms in a measure explain themselves. The patients notice that their memory is failing and that mental concentration is almost impossible, for after one or two bright and rational mentations the mind is tired and refuses to work. The failure on the parts of these patients to perform their usual work renders them irritable and cross, not so much from the fact that they are irritable beings, but exertion pictures to them their weaknesses. For instance, what was once an intensive reader of a book becomes listless and finally turns it aside and devotes himself to thinking. The detail of any work is distressing because it requires an extra exertion, and this is what he wishes particularly to avoid. The perception is a faculty of the mind which suffers most. Following closely on this range of symptoms we have developing fear and introspection. The fear is in most instances poorly grounded and enters into every undertaking and venture. The patient may even recognize the fear to be groundless, yet this does not detract from his feeling of insecurity. With the

advanced cases the emotions enter largely into the case and we may have a condition bordering on a hysteria. What was once a suppressed emotion during health becomes now a potent factor in adding to this condition of misery. Finally insomnia makes its appearance and adds its burden to the unfortunate. During this insomnia and restless sleep we have observed at times the phenomenon known as "formulated dreaming," but again it has been only in the advanced cases. It consists of incidents and details of dreams being carried on in succession for several nights until the climax, which occurred in one case several weeks later.

The above picture of neurasthenia is not overdrawn and will describe conditions met with by us all.

The therapeutic application of the remedy may be said to be then to neurasthenics of the advanced type, particularly those poorly nourished.

The administration of the remedy is by far the most important consideration. In our cases remedies from several sources were selected and tried in cases that had been progressing well under the fresh trituration and the results were not at all satisfactory. This led us to conclude that the best way of administering the drug was in the form of the fresh trituration in powder form. This should be freshly prepared and for a short time only may be kept in dark bottle. Watery solutions were tried and found to be nauseating and were quite unstable. Tablets were not equal to the fresh drug. The dosage was $\frac{1}{100}$ grain of the drug every three hours, *i. e.*, 1 grain of the 2x trituration repeated every two or three hours, depending on the severity of the case.

1. Arsenic iodide is well suited to a case of pure neurasthenia, particularly where the symptoms are referable to the brain and its functions, and is associated with any degree of malnutrition of the body in general. This applies particularly to the neurasthenia of convalescence which follows the acute infectious group of diseases, and where there is a poor appetite with a tendency toward nephritic complications.

2. The remedy applies well to the neuroses resulting from cardio-vascular changes in advanced sclerosis where the nervous system is deprived of its proper nourishment by reason of the thickened walls and irritable circulation.

3. In the neurasthenia of interstitial nephritis the remedy also finds an area of usefulness because of its ability to affect the secretion of urea and check the formation of albumin.

4. In the neurasthenia of wasting diseases, as phthisis, etc., no remedy is better indicated and useful.

5. All triturations, tablets, etc., not strictly fresh, are unreliable.

6. The most convenient method of administration is in the form of capsule. Dry capsules are filled with fresh trituration and kept in dark bottles. These can be administered one every three hours or as required.

SOME OBSERVATIONS CONCERNING ENDOCARDITIS.

BY EDWARD R. SNADER, M.D., PHILADELPHIA, PA.

(Read before the Philadelphia County Homœopathic Medical Society.)

I HAVE often asserted, when discussing the subject of cardiac diagnosis, that the text-book descriptions of the disease "endocarditis" would have to be rewritten. There was a very good reason for that assertion. I do not believe, however, that the time has yet arrived when we can write a final description of the causes, course, symptoms, and physical signs of endocarditis; but I do believe the time has arrived when men who have perhaps most to do with cardiac disorders are in a position to make very important contributions to the subject. The subject of endocarditis ought to be rewritten because the endocarditis of the text-books is not the endocarditis of the clinician. A brief but eminently classical description of an attack of endocarditis would be something after the following style: "When a patient is suffering from acute inflammatory rheumatism, particularly if it be a first attack, is seized with palpitation of the heart, with some little or no pain in the præcordial region, you should suspect the presence of endocarditis; and, following this preliminary heart disturbance, a murmur will be noted, usually at the mitral valve, for the left side of the heart is most frequently attacked, and the mitral more often than the aortic, and the murmur noticed will be found to be trans-

mitted to the left, and may sometimes be heard at the inferior angle of the scapula. The heart is enlarged and the pulmonary second sound is accentuated. There may be few or no symptoms in some cases of endocarditis." The ordinary description of endocarditis is in about this style; some authors "pad" more and say less than this, and others say less and mean more.

There are certain notable errors in this statement of the symptoms and signs of endocarditis, if I may trust my individual experience in the matter. Such a text-book description gives one the idea that we are to be on the lookout for palpitation or uneasiness in the præcordial region. As a matter of fact, it ought to be impressed upon the mind with all possible force that the vast majority of cases of so-called simple endocarditis are absolutely devoid of subjective symptoms. Many cases of endocarditis complicate an illness and nothing is known about it either by the patient or the attending doctor until long after the illness has subsided, or, perhaps, never. There has been nothing in the case, perhaps, to even suggest that the heart or its lining was in any way implicated. Instead, therefore, of a description of the symptoms of endocarditis, it ought to be stated most emphatically *that we do not often have symptoms* in the ordinary forms of inflammation of the lining of the heart. The basis for my opinion that many cases of endocarditis run their courses unrecognized and unsuspected, is the discovery of so many murmurs, indicating the presence of valve lesions in all sorts and conditions of men who have no knowledge whatever that their hearts have within them the evidence of a previous inflammation of the lining. Many, many times, so many times, as to make their discovery common, uneventful, and everyday, has a perfunctory auscultation of the heart discovered murmurs indicating lesions of the valves, without any clinical history whatever to indicate that their presence had been before discovered, at the time of the original endocarditis. Certainly all these cases were not congenital. If so, the heart is more prone to show congenital defects than any other organ in the body, and I, for one, think that such a position is untenable, and that these valve lesions, therefore, were produced by an inflammation of the lining of the interior of the heart secondary to some acute or chronic disease from which the subjects had suffered, or had occurred while the patients were

about and upon their feet, pursuing their ordinary occupations, in consequence of some underlying diathetic or blood state. Certain it is, I have often found endocarditis in progress while the patient was about or recovering from some acute disease. This has been notably so, in so-called "goutics," lithæmics, in the young who suffer from the so-called "growing pains," during the subsiding stages of tonsillitis, and during and immediately following la grippe. No subjective symptoms in these patients led to the discovery of these cases of endocarditis. They were discovered, because, perhaps, I think I can form no estimate of a patient's physical condition unless I have a reasonable idea of the functional power of the heart, and hence the examination of the heart was perfunctory and a part of a general examination, or because I may possibly have a different conception of endocarditis than that derived from the text-books, and, because, knowing from practical experience, that most cases of endocarditis are absolutely without subjective symptoms, I am *not* on the lookout for the symptoms of endocarditis, but I am for the physical signs indicating the beginning of a valve lesion.

In another particular, also, I am at variance with the impression conveyed to the mind by the text-book descriptions of endocarditis. While the authorities admit that endocarditis is a frequent complication, consequence or concomitant (whichever term best expresses the idea), of acute inflammatory rheumatism, and vaguely hint at the possibility and occasional occurrence of endocarditic inflammation in other disorders, the stress upon the assumed necessary relationship of endocarditis to that class of diseases that are tainted with what is called a rheumatic poison, gives one a false conception of the nature and causative factors inducing endocarditis and its consequences. While it is true that the percentage of cases of endocarditis occurring during the course of acute inflammatory rheumatism is very great, the unnecessary emphasis upon the rheumatic element, and the bringing of this particular causative phase too prominently into the foreground as a cause of endocarditis, necessarily makes the background of other diseases and states extremely hazy and uncertain in outline. It is not at all improbable, that if the heart were as carefully examined in all acute disease for the presence of endocarditis as

it is in acute inflammatory rheumatism, the cases of discovered endocarditis found in connection with other diseases would be found to far outnumber the rheumatic cases in the aggregate, and would leave rheumatism simply as the most frequently discovered cause of endocarditis; and such a description would, I believe, lead to a better understanding of the clinical associations of endocarditis, and, consequently, to its more frequent diagnosis during its progress. While I have, of course, found endocarditis of the acute, simple variety in most cases of inflammatory rheumatism, I have found it very frequently in connection with tonsillitis, pneumonia, pleurisy, the exanthemata (and of these with about equal frequency in measles and scarlatina), la grippe, typhoid fever, and diphtheria, and also in connection with gout, chorea, lithæmia, arthritis deformans, exophthalmic goitre, gonorrhœa, syphilis, and pulmonary tuberculosis.

As a practical clinical fact, endocarditis can occur in connection with any disease, no matter what its general or special pathology, in which the composition of the blood is altered, or in which germs or their products can be carried to the interior of the heart by the blood stream. This view widens the scope of the clinical conception of endocarditis, and is the one I want to insist upon as a necessary precedent to its diagnosis at the bedside. Such a conception will lead to the closer and more systematic examination of the heart in many diseases where it now receives scant attention. We all know that all kinds of micro-organisms have been found post-mortem on the heart valves, in connection with endocarditis, and the significance of this discovery has not been sufficiently appreciated by the profession. Whenever pathogenic germs are present in the organism, whenever the blood stream is contaminated with poison of any sort, capable of irritating tissue of the kind that makes up the lining of the heart, whenever it is loaded with waste material, you have present a possible causative condition capable of inducing an endocarditis, whether the patient is ill in bed or about upon his feet.

Clinical endocarditis is so deceptive in its symptomatology, when it has any, and is so insidious and sneaking in its progress, that it is quite possible for a case to go on to the production of chronic valve mischief, without the patient having had any knowledge that anything was wrong, or if sensations were

present they were not properly interpreted by either the patient or by the medical man, if one was consulted. I have often found endocarditi, when the patient came to me complaining of palpitation, and, before examining the heart, I had supposed I was dealing with an everyday functional disorder. Palpitation in children should particularly call your attention to the possibility of endocarditis. This palpitation is one of the classical symptoms of the text-book endocarditis, and is present in a fair proportion of cases, but is by no means a constant accompaniment of endocarditis; and when palpitation occurs in a person walking about and otherwise in ordinary health, one would have to "strain" one's imagination a good deal to think of the possible presence of endocarditis, if we had only the old conception of endocarditis to suggest its possible presence.

It seems wise, therefore, to widen the field of our conception of endocarditis, and make it a disease that can occur in connection with any blood malady or with any affection in which there is circulating germs or their poisons in the blood stream, provided they have sufficient power to irritate the tissues composing the lining of the heart. I would not ignore the importance of rheumatism in the production of the endocarditic lesions, but would simply have you conceive that rheumatism is only one factor, and not the whole show.

While I have never myself seen a case of what might be called primary endocarditis, I have not infrequently observed cases in which the primary disease was most difficult to diagnose with certainty, sometimes on account of the paucity of factors, but more frequently because there were mixed conditions present, and it was impossible to determine the particular factor responsible for the endocardial attack.

On still another point do I disagree with the ordinary text-book descriptions of endocarditis, and that is in respect to the nature of the physical signs. For instance, enlargement of the heart of the hypertrophic type rarely occurs in connection with acute endocardial disease, unless the disease of which the endocarditis is a complication is of long duration and the nutrition of the patient very little impaired by his illness. It is the hypertrophic enlargement that was intended to act as one of the physical signs of endocarditis, and not the enlargement that occurs in connection with dilatation, which, while not frequent

with simple endocarditis, does sometimes occur; but when it does occur, the enlargement is to be recognized as a sign of dilatation (a much graver condition of affairs than uncomplicated acute endocarditis ordinarily is), rather than a sign of endocarditis *per se*. The books tell us, too, that the murmur is transmitted (for instance, when the mitral valve is affected by an insufficiency-producing lesion to the left and at the inferior angle of the scapula). It is with extreme rarity that this transmission occurs while the lesion is in the process of evolution, for the reason that transmission can hardly occur until the endocarditis has passed into the condition of a permanent valve lesion, and this may be a long time after the acute endocarditis has passed away. The pulmonary second sound is said also to be accentuated in left-sided heart lesions while the changes in the endocardium are in progress. Such an accentuation does, in some instances, occur toward the latter part of an attack of endocarditis, and with extreme infrequency early, but this physical sign of pulmonary second-sound accentuation is by no means a common physical sign available for the diagnosis of acute endocarditis.

All this criticism brings me to the consideration of the diagnosis of acute simple endocarditis, the only form that I shall at present consider. With the mental conception dominating the mind that endocarditis may complicate all the acute, as well as chronic blood states, all the exanthems, and all the bacterial diseases, one is ready to begin the investigation of the heart. While symptoms more or less vague may or not be present, we must have the idea that the diagnosis will not in any way depend upon the presence of certain symptoms, but invariably upon the finding of certain physical signs, although certain symptoms and other signs in the case may find their proper interpretation when the physical signs of endocarditis are discernible. According to my individual experience, the preliminary palpitation or irregularity in heart action, which is supposed to be the initial symptom, as well as physical sign, is not frequently a marked feature. It may have been present at an extremely early period, and been unnoticed by the patient, but I have rarely been fortunate enough to be able to note this condition and include it among the physical signs. Palpitation of the heart, and persistently rapid action, I have noted particularly

in subacute or chronic endocarditis succeeding the acute endocarditis, when nature is attempting compensation. During this compensating period, when the endocarditis is becoming a valvular affection, palpitation and rapid heart action are more often made a matter of comment by the patient than during the prevalence of the acute disease itself. Undoubtedly, this symptom of disturbed heart action has occurred in the beginning of the inflammation of the lining of the heart within the observation of competent observers, but it has simply been not a noteworthy occurrence with me, and justifies me in not considering it at all essential to the diagnosis of the affection of the endocardial membrane, and unworthy of so much consideration as a symptom and sign of the commencing period of endocarditis. Palpitation and rapid heart action are found, too, at the other end of the picture—when compensation is failing. Pain is rarely complained of, for very obvious reasons, the heart and its lining are not specially sensitive to pain. In my general examination of a sick patient I always take in the heart as a matter of course; but when the blood is in any way contaminated, or I am dealing with tonsillitis or rheumatism of the acute or chronic type, I am especially on the watch for the possible occurrence of endocarditis. I watch for any blurring of the heart-sounds. At my next visit I note whether this modification of the heart-sound has increased or diminished, or whether it is growing into such a modification of the heart-sound as to constitute a murmur. After several examinations, and sometimes after many, this blurring grows into a perceptible murmur, *and this murmur grows in intensity with each successive examination* (other things being equal) up to a certain definite point.

The presence of a murmur that gradually increases in loudness is the cardinal and only positive sign of an acute simple endocarditis. If the case is of long duration, the other classical signs may be gradually added. But, if the doctor waits for the appearance of these latter physical signs before he diagnoses endocarditis, he will be diagnosing a subacute or chronic valvular affection, and not an acute endocarditis, and he will have missed the opportunity of therapeutically managing the endocardial lesion so as to minimize the ill-results of a chronic valvular affection. When I meet with the classical physical

signs of an endocarditis, namely, a well defined murmur, an enlarged heart, a transmission of the murmur, and an intensification of the pulmonary second sound, I am inclined to regard them, not as the signs of an acute endocarditis, but rather the signs of a chronic valvular affection discovered in the course of the examination, and this decision may have great effect in altering my conception of the therapeutic needs of the patient, and it will alter considerably my statement to the family as to the nature of the cardiac complications present. In many instances you can be quite positive that the lesion is an old one, and it may save yourself from the possible disagreeable assumption on the part of the patient's family that you permitted the occurrence of the heart complication. With or without symptoms I regard this murmur, gradually increasing in intensity under my direct observation, as the one thing needful in the diagnosis of an acute endocarditis.

You know, of course, that murmurs occur in other acute maladies of the heart than endocarditis, as well as in chronic affections. You are positive, and rightly, that every murmur heard in the heart is not the representative of either an acute inflammation of the heart's lining or a chronic valvular lesion. Murmurs occur in many of the acute diseases, in acute as well as chronic dilatations occasionally, in the so-called relative insufficiencies, in the Bright's diseases, in the anæmias, in the degenerations, notably in atheroma of the heart, and, it must be said, in some conditions which we do not well understand at this stage of the development of physical diagnosis as applied to the investigation of the heart and its maladies. While, therefore, murmurs are heard in other affections than an acute endocarditis and the subacute or chronic valvular affections of the heart, and a murmur is not pathognomonic, the differentiation of the meaning of a murmur is usually possible at the bedside, and the diagnosis is not prevented by the mere fact that murmurs may be and are heard in other affections.

The murmur present in acute dilatation of the heart is one usually associated with evidences of enlargement obtained by percussion and by other modifications in the character of the heart-sounds besides the murmur, and the expiratory sound are apt to be lengthened, notably at the bases of the lungs, and there may be besides evidences of pulmonary hypostasis or

œdema, and the murmur does not increase in intensity if the dilatation is progressive, but rather diminishes in loudness, and, indeed, may even disappear altogether if the dilatation becomes extreme, while if the dilatation becomes progressively better, the murmur will also disappear, or, if it does not, it will not increase in intensity, as does the murmur of acute endocarditis, when that malady pursues its ordinary clinical course. If dilatation supervene upon the course of an acute endocarditis, an immediate diagnosis of acute endocarditis may not be possible until after the subsidence of the acute dilatation. Unless the diagnosis of endocarditis was made prior to the occurrence of the dilatation there will be considerable difficulty attending the diagnosis of endocarditis; but, for the time being, this fact need not give the clinician much concern, for under these circumstances, usually, it is the dilatation, and not the endocarditis, that is the grave feature and the one that requires therapeutic attention.

The murmurs occurring with the degenerations accompanying the acute diseases do not increase in intensity with successive examinations, and investigation of all the heart-sounds shows that the heart is universally affected, and is not alone locally affected, as it were, as in an ordinary everyday endocarditis. These murmurs, too, tend to disappear as the patient convalesces.

The heart-murmurs produced by states of atheroma are usually so loud, well defined and "established," that only a tyro could possibly mistake them for the evidences of a new and acute endocardial involvement; and even if it could be supposed that such "organized" murmurs, if I may so term them, could be presumed to be due to an acute endocardial affection, the state of the arteries in general would set one right; and if the peripheral arteries, under such unique circumstances, were apparently unchanged, still one could examine the temporals and the base of the aorta by interrogating the second sound, as heard over the aortic area, and finding that sound not only decidedly accentuated, but conveying to the ausculting ear the idea that the valve not only closed with unusual vehemence, but also that the valve-sound in itself was "thick."

The murmurs of anæmia can be differentiated from those

of an acute endocarditis by the fact, equally true of both endocarditis and the anæmias at certain stages, namely, absence of enlargement of the heart, by the associated venous hum in the vessels of the neck, by the fact that the inorganic murmur, are variable in their intensity, sometimes, even during the evolution of a single heart-sound that the hæmic murmur may happen to accompany, and by the fact that the intensity varies in several heart-sounds without appreciable and discoverable reason therefore in the manner in which the heart is acting. A blood examination might offer some information here, but the information might not be of such a nature as to positively settle the nature of the murmur, for decided anæmia can exist without hæmic murmurs on the one hand, and real endocarditis can exist and progress in the presence of an anæmia. In the still graver anæmias, or blood diseases, as leucocythæmia and pernicious anæmia, you will nearly always find murmurs, and they are organic in character, due to changes in the heart walls and to coexisting dilatation, and under certain circumstances a differentiation from a simple endocarditis might not be possible; but, as I remarked before, under such circumstances an immediate diagnosis of an acute endocarditis complicating these affections would be of little practical value, because of the existence or coexistence of a still graver condition than endocarditis.

The chronic valvular affections are diagnosed by the presence of a definite murmur, with enlargement of the heart, and with the other accessory modifications of the heart-sounds that go to make up the diagnosis of a heart malady of the valvular type. The history may be of assistance.

The diagnosis of an acute endocarditis supervening upon an old established valvular lesion is not always possible, if the previous valvular status be unknown, or the physician has not examined the heart prior to the time when the first examination is made for suspected endocarditis. Even here, however, if a murmur appears at a new opening, or even at an old one, the previous murmur becoming modified, and the apparently new one increases under your direct observation, you will have evidence of a new endocarditis engrafted upon the remains of an old one.

Let me say that the murmur of acute endocarditis does not

invariably increase in intensity under your direct observation. It does not do so if dilatation supervenes upon the endocarditis. If the diagnosis has not been previously made of an endocarditis, it will be impossible to determine anything but that the murmur present is in all probability dependent upon the discovered dilatation, until after the subsidence of the dilatation.

I regard, then, the presence of a murmur, and the fact that it grows more intense under observation, as the diagnostic sign of an endocarditis, and also the feature of differentiation from other murmurs for which it might be mistaken. There very exceptionally occurs during the progress of a case of endocarditis a sudden disappearance of the murmur and a subsequent reappearance, which modification is probably due to a new disposition of the vegetations or new additions or changes in the distribution of the inflammatory material in the subserous coats of the valves. This disappearance may come after you have made your diagnosis, and will cause no difficulty in the diagnosis; and still less will be the difficulty, if a murmur, when it reappears (or even if it is an entirely new one) grows gradually in intensity up to a certain point. Indeed, these sudden alternations in the character and disappearance and reappearance of murmurs may, indeed, in certain rare cases, be as diagnostic of the presence of endocarditis as the murmur of ascending intensity that is the more common. I think, if the full significance of the fact, that a positive diagnosis can be rarely made at one visit or one examination, will be appreciated, it greatly clarifies the subject of the diagnosis of this frequently overlooked or misdiagnosed affection of the interior of the heart. I know it is impossible, however, to diagnose all cases of endocarditis during the progress of the malady, but this should not prevent all physicians from attempting the diagnosis, because, exceptionally, it is not possible to be positive of the existence of an endocardial affection during its inception, progress and course. I am quite certain, however, that cases occur in which there is no discoverable murmur during, at least, the acuter stages of the malady, and I am led to express this opinion because I have personally had symptomatic reasons for suspecting the possible presence of endocarditis, and the most careful, painstaking and repeated examinations, under most favorable

circumstances, have failed to reveal any of the positive diagnostic data of endocarditis. In some of these cases later, sometimes months later, and without the supervision of any acute or chronic disease, to which endocarditis would likely be an open or sneaking sequel, I have found a well-marked and positive murmur, with all the signs of an already compensated or compensating valvular lesion; and the inference was more than reasonable that the heart had been attacked with an endocardial inflammation, and I was all this time endeavoring to detect the lesion, and failed. However, such a condition of affairs is rare.

Right here, I may profitably remark in passing, that conclusions drawn regarding the relative prevalence of acute rheumatic endocarditis during the progress of acute inflammatory rheumatism ought to be questioned, until at least six months or more have elapsed, before conclusions are drawn that this or that treatment of the rheumatic attack is more or less productive of attacks of endocarditis. Some of these "sneakers" would spoil statistics.

You may wonder why it is necessary to make the endeavor to discover endocarditis, if it apparently so frequently pursues such a benign and often sneaking course, and the prognosis in the simple form as to life is so favorable; but such a careless course is more than reprehensible in a physician claiming to be a real doctor. It must be remembered that even if the prognosis is good in these cases, they nevertheless require judicious therapeutic management to secure the minimum of damage to the inflamed valves, by keeping the patient longer at rest, and thus bringing less strain upon the heart valves. Remember, too, that in endocarditis, the myocardium as well as pericardium are often attacked, and myocarditis and pericarditis are often "sneakers," too. If you do not attempt to find the endocarditis, you will not find the myocarditis or the pericarditis. Besides, there is the danger of emboli from the vegetations. Then, too, any of these cases of simple endocarditis, particularly those of bacterial origin, may assume the malignant or septic forms, and end fatally. The chances are, too, if you make the diagnosis of any inflammatory condition of the heart valves, you will handle your alcoholics and your cardiac stimulants, and your cold baths, and all your adjuvant and direct

treatment with greater judgment. Besides, I individually believe that it is quite possible to cure absolutely some of these cases of endocarditis and prevent the occurrence of the usually sequent chronic valvular affection, which may or not prove a menace to the future health and happiness of the patient. Given a case of moderate intensity, why cannot absorbents take up much of the inflammatory material and thus minimize, if not entirely remove, the elements that will ultimately, if left to themselves, partially occlude an opening or cripple a valve? I can see no valid reason why such absorption cannot, at least, measurably take place. Of course, the text-books do not countenance such a view of the possible curability of endocarditis, but these text-books do not tell us all about the disease, and these prognostic opinions concerning the non-curability of endocardial inflammations have been copied and copied from book to book until they appear from repetition to have taken upon themselves the sacredness of the Gospel. I say we should try to cure these cases, and I personally believe that many of these cases have been cured, and I think I have cured or seen some cured myself. The only possible hope of securing such results, of course, will depend upon the discovery of the endocarditis during the earlier part of its progress, before the inflammatory products have had time to definitely organize; in other words, when these tissue elements are absorbable. It seems, from all these considerations, that the profession has been unduly derelict in its attention to the endocardites; and while the diagnosis, under some circumstances, is admittedly difficult, the difficulties in the vast majority of instances are by no means insurmountable, and the "game is worth the candle." It is our duty, therefore, to contribute all we can to the diagnosis of this malady, so that the time when the course and clinical history of endocarditis can be properly rewritten will be hastened; and when it is, there will be, I am quite sure, an entirely different opinion expressed concerning many points that are now considered settled beyond peradventure.

PRESIDENTIAL ADDRESS TO THE HOMŒOPATHIC MEDICAL SOCIETY
OF THE STATE OF NEW YORK.

BY JOHN W. LESEUR, M.D., BATAVIA, N. Y.

(Delivered at Albany, February 10, 1904.)

THE year now closing has been an eventful one in the history of this society, and has been marked by important changes, unusual losses, and substantial gains, in the wide field of medicine and surgery. The demands of the public, whose general education and intelligence are constantly increasing, are greater to-day than ever before. Whatever attainment is made in the broad field of general education calls for a corresponding attainment in the field of medical practice.

The thought which was most significant at the close of last year was the desirability of unity in the several schools of medical practice and the desirability of a unification of the three most prominent ones. While the difficulty of realizing this ideal was universally recognized by the best thinkers in all schools, and the general expression seemed to be that " 'twas a consummation most devoutly to be wished," yet, the difficulties which presented themselves in the practical accomplishments of this object seem almost insurmountable. It is because the several schools of practice have been modified by contact with each other that the leading men in each school have looked toward unity as a possibility in the near future. I believe that unity may be practically achieved, not by the surrender of the distinctive characteristics of the several schools, but by the prosecution of courses of study which distinctly characterize the several schools and by exemplifying and demonstrating the distinctive truths which are salient in each school. It is reasonable and to be expected that as there is a steady growth in knowledge and wisdom among medical men, and as the study of facts by all students leads to a more clear and complete comprehension of truths, there is likely to be, when the diversity as well as the unity of truth is well understood, a unity of action in the teaching and practice of this truth. This unity, however, will likely be similar to that of a

great army which is made up of artillery, cavalry and infantry, each having a particular work to perform, and each strong in that particular work, but all working together to the attainment of a given end.

I am fully in accord with the strong and broad position taken by my predecessor as president of this society, Dr. John L. Moffat. If it is wise for one member of this society to join a society distinctively allopathic, it is wise for all; if wise for all, what need of any homœopathic society. Dr. Moffat's argument on this point is convincing in its logic and irresistible in its conclusions. When any fair and just proposition is formulated which provides for an organized union in which the rights and salient principles of the homœopathic and eclectic schools shall be fairly recognized, then, and not till then, will a fair, just and stable unification be possible. What we need in this particular direction is not so much that our best men shall be recognized and kindly treated by other schools of practice, but that they devote their brilliant talents and untiring energy with increasing and constant zeal, to building up a knowledge of the scope of the homœopathic school of practice and the limitless field of its activity.

It is by the work of these men, aided by the hearty co-operation of the rank and file of our whole army, that we may reasonably expect to conquer opposition and attain the enviable distinction to which our principles of practice justly entitle us. It is incontrovertably true that our use of medicine has materially modified the practice of both of the other prominent schools. It is a fact that they do not attempt to deny. It is also true that our own school contains as skilful surgeons as successful alienists as prominent and useful practitioners as either of the others, and it is of the highest importance for us to recognize that when we become members of either of the other societies we, to a certain extent, surrender our rights in our own, until such time as a unity is possible which shall permanently establish the principles which our forefathers struggled through many years of persecution and suffering to establish.

The danger which, to my mind, menaces our own school of practice is the danger of dwelling too much in the past—the danger of relying too much upon the achievements of the

founders of homœopathy. It is a significant and painful truth that individual research under the jurisdiction and direction of the homœopathic school of medicine belongs to the century just past, rather than to the century just opening. Many prominent men in the past ten years have left the membership of this State Society, finished their work, "fallen on sleep and gone to their reward." They have distinguished themselves by special and marked attainment in their respective spheres of activity. One danger which threatens you and me to-day is relying upon their achievements, instead of working out our own salvation in the medical world by measuring up to the present high standards of scientific research.

In order to appeal to the thinking public to-day, and to justify our right to exist as a separate branch of the great medical fraternity, we must be keenly alert and fully awake to the ever increasing march of the sciences, which are closely allied to, and distinctly helpful in, the practice of medicine. In this connection it is a pleasure to state what, to me, appears increasingly self-evident, that the aim of the teachers in our best homœopathic medical colleges is to train men in *all* the branches of medical sciences so thoroughly that they will be able to cope successfully with the difficulties which present themselves in the widening field of actual practice, and to compare favorably with the best students produced in any college in any country.

I have taken the pains to procure some statistics along this line which are encouraging from one point of view and not satisfactory from another. If it be true, as we have claimed, that our method of practice has distinctive advantages over other methods of practice, it ought to be true that the relative number of homœopathy practitioners is steadily increasing in the State. I wish it were true, but I fear it is not. I submit for your examination a tabulated statement of the number of students who have passed the State examination under the direction of the University of the State of New York, and beg to call your attention to some of the figures presented in this statistical review. I cover from 1892 to 1903, and show for your consideration the number of students examined by the joint board from each of the three schools of practice in each year, the number who successfully passed the State examination, and the number rejected in each school of practice.

Results of Medical Licensing Examinations, 1892-1903.

The number of licenses issued through 1903 was 6162. Each candidate who fails is counted as often as examined, though the failure is not charged more than once against the medical school unless the examinations are taken in different years.

	Examined.												Total.	Passed.	Rejected.	Per Cent. Rejected.
	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.				
State Board.....	56	267	390	606	714	772	809	738	710	671	610	667	7010	5530	1480	21.1
Homœopathic Board...	8	21	51	60	56	45	36	68	58	58	53	43	557	473	84	15.0
Eclectic Board.....	4	7	4	11	18	13	24	30	24	20	22	46	223	158	65	29.14
Total.....	68	295	445	677	788	830	869	836	792	749	685	756	.....	.....	.....	.....

	Accepted.												Total.	Per Cent. Passed.		
	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.				
State Board.....	51	247	311	445	516	580	607	600	578	532	501	562	5530	78.8		
Homœopathic Board...	6	19	44	52	45	37	26	52	53	52	46	41	473	84.9		
Eclectic Board.....	2	5	2	10	17	10	19	19	18	15	11	30	158	70.8		
Total.....	59	271	357	507	578	627	652	671	649	599	558	633	6161	79.08		

An encouraging feature of this review is that it has been in the homœopathic school that the largest percentage has passed this State examination successfully. It must be remembered, in this connection, that the same examination is passed by all students presenting themselves to the State Board of Medical Examiners in all branches, excepting in materia medica and therapeutics. If it be true, as these statistics show, that the students which we graduate are fully the equal of those in other schools of practice, ought we not endeavor to devise means to increase the relative number of students graduating from our colleges? for instance, as the figures submitted show, that in this Empire State, during the years from 1892 to 1903, inclusive, 5530 students have passed the State Examining Board and became regularly qualified practitioners of medicine in the allopathic school; while in the homœopathic only 473 have entered the ranks of medical practitioners. If we believe that it is worth while to maintain our distinctive faith, it is certainly worth while, as individuals, to take some interest in

endeavoring to advance the interests of our students, and there are some features of the present medical law which are demanding our consideration. For instance, ought the law requiring a four-year course of study to be modified so that the student having pursued the regular course of college, and having been regularly graduated from college, might have, at least, one year of his college training gained in his medical course, provided he is able to satisfactorily pass the examination submitted by the medical college and required by the State Board of Medical Examiners? Whatever of scientific achievements the college student has ought to be counted for him in his career as a medical student. Whatever of chemistry, physiology and histology he has acquired before entering a medical college ought to pass to his credit and diminish the duration of time he is expected to spend in the medical college.

This is not a plea for an abbreviated course of training for medical students; it is not a plea for less thoroughly qualified physicians; it is, rather, a recognition of the value of the college training. The practical tendency seems now to be to induce young men to forego college training because so much time is required in the medical college that the preliminary college education is omitted. By the broad and thorough work of a college course, the student unquestionably is better fitted to enter upon the study of medicine, and by a careful system of examinations whatever is gained in a college course might be passed to his credit without diminishing his standing as a medical student, even though less time were spent in a medical college. If the standards and requirements of all medical colleges could be the same, the interests of the science of medicine would be appreciably benefited.

Another fact to be submitted for your consideration, at this time, is this: All students in all schools of practice are required to pay a fee to the University of the State of New York for the securing of a State license to practice medicine. They then go out into the field of practice to compete with all quacks and charlatans, and the burden of prosecuting violations of the law is laid upon the practitioners themselves, or the county society to which they belong. I submit for your thought this question, whether or not the Medical License law should not be so

amended as to place in the hands of the Attorney-General the right and duty of prosecuting illegal practitioners. As the matter now stands, legal practitioners pay for the right to practice their profession, and are amenable to the requirement of the law, while illegal practitioners of various names go scot-free and reap the harvests which belong to qualified practitioners.

Actions for Malpractice.

"I submit for your consideration the question as to the advisability of endeavoring to secure the enactment of a law which shall make it incumbent upon persons who institute actions for malpractice against regularly qualified and duly licensed physicians of either school, in this State, to put up a good and sufficient bond equal in amount to the sum sued for, the provisions of this bond to be such, that in case of failure to maintain their action at law one-half the sum sued for shall revert to the physician against whom action is brought as compensatory damages sustained by the bringing of said action; the other half of the amount to revert to the Treasury of the State of New York."

Unprincipled Attorneys.

"As the law now stands, any aggrieved individual may find an unprincipled attorney who is willing to bring suit for trivial cause, and to take cases which are manifestly unjust ones, upon speculation, agreeing to charge nothing for services and costs unless damages are awarded. This leads to unjust treatment of physicians, and unprincipled persons gamble upon their knowledge of the fact that the bringing of an action against a physician, whether justly or unjustly, does, to some extent, jeopardize his reputation, and frequently the knowledge of this fact is used as a means to blackmail physicians in this State."

Protection of Physicians.

"During the last year there have been noticeable instances of this kind of attempted blackmail. So general has this practice become among lawyers of a certain class, that societies for the protection of physicians have been established, membership in which is secured by the payment of a liberal fee. These societies guarantee to undertake the defense of regular physi-

cians in all cases. If feasible, it would seem desirable to have some State organization provided, by which members of the several medical societies who have been duly licensed by the State would be defended in malpractice suits, either by the counsel for the State Society, or by some attorney or attorneys, selected by the State Society, in whatever part of the State the action might happen to be brought."

If some arrangement could be made by which the payment of a stated fee into the treasury of the State Medical Society should guarantee the members the protection and defense suggested, it would, doubtless, be the means of largely increasing the membership of the three State Societies, and would greatly diminish the number of unjust actions brought against qualified physicians. If by this, or any other legitimate means, the active membership in the Homœopathic Medical Society of the State of New York could be increased, its efficiency would be made vastly greater. One reason why the Homœopathic Medical Society of the State of New York is small in numbers, and less energetic and efficient than it should be, is the lack of interest in its work which characterizes many of the homœopathic practitioners in the State.

The great importance of this increased membership will appear when you consider that at the present time this society membership is not increasing, and it is the imperative duty of this society to constitute a committee of the whole to consider this burning question, Why is our State Society so small, and why is there so little general interest in the maintenance of the organization which is absolutely indispensable to our existence? and the personal question, What can I do, as an individual, to increase the membership and interest in, and efficient work of, the State Society? ought to be answered by every homœopathic practitioner in the city and in the country, at the lonely crossroads, as well as in the busy hospital. Our clientele includes some of the most intelligent and wealthy citizens of the State and nation. We have received State and national recognition, and substantial legacy and endowment for our distinctive faith. We cannot merge it in another faith where it will be lost. We must maintain it, and insist upon its recognition as a "*sine qua non*" to unification.

It is greatly to be regretted that of the whole number of

physicians in the homœopathic school, who are practicing in the State of New York, a number so comparatively small should be regularly in attendance at the meetings of the State Society. In this connection the question has been asked, Is it desirable to have but one meeting of the society during the year, and if but one meeting were held would it be probable that a satisfactory attendance could be secured? With a view of gaining some information which would be of value in attempting to answer these questions, I have asked a member of this society, Dr. E. F. Swett, of Medina, to write to the secretaries of the several State societies throughout the United States. It appears from the replies received in answer to the questions submitted by Dr. Swett to the several secretaries, that only a very small number of State societies hold more than one meeting during the year. States holding more than one meeting are named in the list which accompanies this report.

In view of the fact that so many local societies hold regular meetings in the several parts of the State, and in view of the fact that most of the members of the State Society desire to attend the meeting of the American Institute of Homœopathy each year, it would seem that the interests of the State Society might be conserved by omitting the semi-annual meeting of this society. Increase membership in local societies and make them part of State Society; and inasmuch as the work of the State Legislature, which is likely to be directly beneficial to the society, is almost entirely in the hands of the members of the legislative committee of the State Society, it would seem to be unnecessary, if not unwise, to hold the annual meeting always in the same city, and always at the time of the year when the average physician is likely to be unusually busy. This is submitted for the consideration of the society, with a recommendation that some action be taken in the near future.

The plea that it is necessary, on account of holding the meeting of the society at the time when the Legislature is in session, has little or no weight now, because the work of the society, as it has reference to legislation, is done by the legislative committee, and no work can profitably be done by the society as a whole in the brief time which is occupied by the annual session of this society.

State Societies.	No. of Meetings Annually.	When Held.	Program.
1. Illinois.....	1	May.	All bureaus report at each meeting. Prosperous.
2. Iowa.....	1	May.	All bureaus report at each meeting. Prosperous.
3. Michigan.....	1	May.	All bureaus report at each meeting. Successful.
4. Minnesota.....	1	May.	All bureaus report at each meeting.
5. Missouri.....	1	April.	All bureaus report at each meeting.
6. Wisconsin.....	1	May.	All bureaus report at each meeting.
7. Delaware.....	1	November.	One special topic discussed.
8. Maine.....	1	June.	All bureaus report at each meeting.
9. New Hampshire..	1	June.	Nearly all bureaus report at each meeting.
10. New Jersey.....	2	Mch. and Oct.	Miscellaneous program.
11. Rhode Island.....	4	Jan. (annual).	Miscellaneous program. Contemplating bureau system.
12. Vermont.....	2	Mch. and Oct.	Endeavor to have all bureaus report.
13. West Virginia.....	2	May and Oct.	Miscellaneous papers. Society in embryo—13 members.
14. Texas.....	1	At call of Pres.	Try to have all bureaus report. Hard work.
15. Kansas.....	1	May.	All bureaus report at each meeting.
16. Oregon.....	1	June.	All bureaus report. "Alive, progressive, up-to-date."
17. Massachusetts....	2	April and Oct.	<div> <div>April.—Clinical Medicine. Obstetrics. Pædiatrics. Insanity and Nervous. Public Health.</div> <div>Oct.—Materia Med. Surgery. O., O., R. and L. Dermatology. Syphilology and G.-U. Gynecology.</div> </div>
18. Pennsylvania.....	1	September.	All bureaus report at each meeting.
19. Connecticut.....	2	May and Oct.	Two or three bureaus report at each meeting.
20. Ohio.....	1	May.	All bureaus report at each meeting. Successful.
21. Indiana.....	1	.....	All bureaus report.
22. Kentucky.....	.....	.....	.....
23. Maryland.....	.....	.....	.....
24. Alabama.....	.....	.....	.....
25. Arkansas.....	1	At call of Pres.	Miscellaneous papers. Small society.
26. Louisiana.....	12	Second Monday.	Miscellaneous papers. Small society.
27. California.....	1	May.	All bureaus (eleven) report. Four papers in each bureau.
28. Colorado.....	.....	.....	.....
29. Nebraska.....	.....	.....	.....
30. South Dakota.....	.....	.....	.....

These several recommendations are submitted, not because they are new or in any sense startling, but because they cover some of the points which, to your presiding officer, have seemed of great importance. It is my deliberate opinion that we stand,

as homœopaths, in a position which is fraught with the gravest perils, not from any lack of strength or justice in our cause, but because lulled by a false sense of security and jeopardized by the specious flatteries which are bestowed upon us, we are in danger of selling our dearly bought birthright for a paltry sum, and to us, under present circumstances, a useless, worthless and dangerous "mess of pottage."

EDDYISM, OR CHRISTIAN SCIENCE; THE REASONS FOR ITS SUCCESS.

BY M. W. VANDENBURG, M.D., MT. VERNON, N. Y.

THE phenomenal success of this cult has been a matter of wonder to many, but, like every other thing that "succeeds," it can show good reasons for its results.

The success of Mormonism is also remarkable; so is the success of Mohammedanism; Buddhism is a success judged by the standard of numbers; success is not always a standard of measure for morals, or of mental superiority. It may depend upon facts and conditions not altogether complimentary or commendable.

Probably false logic and crass ignorance, together with unbounded assurance, are the main foundations of success of Eddyism.

Dr. Morrison well says in his article in the March HAHNE-MANNIAN, "that any theory or belief will thrive and grow for a time if only *vigorously propounded* and maintained with *unlimited assurance*." To this we may add, any belief or theory, however absurd, that has elements of truth mixed with its error, will invariably succeed if it appeals to those in misfortune.

Eddyism is a mixture of the most complete contradictions of logic, and of inductive and deductive reasoning, that has ever gained a hearing.

By its volubility it has darkened counsel with words, with endless iteration of words, until the ordinary mind is confused and stupefied.

Every sentence of any length contradicts itself, or some closely related sentence. Most minds are illogical, hence easily

confused. The average mind is carried away by a bold, logical contradiction.

At the risk of repetition let me review the "fundamental, self-evident propositions."

"1. God is all in all." What does this mean? Does it mean there is no non-God? That God is everything? In that case we do not exist unless we are God. Is this God a unity, or a plurality? If a unity, we do not exist unless we are parts of that unity. If we may think or act of our own volition, then God is not a unity,—or, there is *non-God*. If there is non-God, then all that follows is of no use; is false. Because God is mind does not necessitate that non-God is mind; it may be matter, it may be any form of existence that is non-mind.

This should stop the logical, right-acting mind from any further consideration of this "revelation." It has no foundation in the possible laws of thought. But of course few will be content to stop with sane, calm reason, when such glittering air-castles lure them on to contradictions.

It is hardly worth while to waste space, time, or words trying to argue with one who denies in one breath what was said in a former breath.

Mother Eddy is constantly talking about things that she says do not exist, never did exist, never could exist, and never will exist, and all this as though they really did exist. She talks of "swallowing poison." If there is no such thing as swallowing, and no such thing as poison, why talk of doing a thing that never has been, nor can be done, with a thing that never has, nor can exist?

Why draw comparisons? Why quote further?

Since God is all in all, "mortal mind" does not exist, cannot exist; is not, cannot be.

We will leave the "students" of the "new psychology" to wrestle with this problem, while they *continue to act* as if *all they affirm as untrue* had the most tangible existence possible. If once their acts would square with their absurd jumble of ideas, the undeluded would soon be rid of their company. Why feed, clothe and care for what does not exist?

How, then, does this most absurd of all delusions manage to thrive so well?

The question is not difficult to answer. If upon any system

of mental, moral, or social error you will engraft some material and tangible good, or some desirable privilege, good or bad, or some scientific truth that is beneficial to the individual or community, or some advantage not secured by the present *régime*, you will not lack for followers. On the contrary, the thing is bound to flourish for a time, if not persist for generations.

Mormonism has tacked to its "revelation," sexuality; a trait co-extensive with the race; and added also mutual help in matters social, which is one of the most powerful factors for the up-building of a community; to these it has also added certain vague and wholly unproven benefits supposed to accrue *after death*.

With three such powerful forces in its favor, how could it help succeeding. It has been a shining success. Let it drop sexuality and social help, and see how long its "revelation" will hold it together. Revelation is the thin disguise with which to cloak the real matters at issue, the real forces that make for its success.

The real forces that make for the success of Eddyism are not its absurd, grotesque and always self-contradictory logic, not its equally absurd, supersensible, unthinkable philosophy, but some very hard facts in curing the sick, and in keeping the healthy well.

No one not a woman could ever have produced such "a hash" of the real and the unreal, or so completely confounded things diverse.

She may be sincerely believed when she says, "No human pen or tongue taught me the science contained in this book." Theology, therapy, psychology, physiology, chemistry, physics, history and logic never were taught her; at least she disregards them all with the same disdain and consistency that she *says* one thing and *does* another.

Here are a few physiological and psychological facts claimed as part of Mrs. Eddy's "revelation," but not in their old familiar dress, to which we are accustomed.

1. The mind and the emotions have great influence on the physiological functions of the body. Some people are much more susceptible to this class of influences than others; but no one is wholly free. What a patient thinks about, and the emotions his thinking tends to inspire, are *always injurious* when they tend to depress and discourage the mind, to arouse

fear, dread, despair or a feeling of hopelessness; while, on the other hand, thinking that tends to encourage, elate and give hope and confidence is *always beneficial*.

It matters not whether the disease be real or imaginary, the influence is to a certain extent the same: the first tends toward death; the last toward recovery,—life.

2. We meet a large class of ailments *that are purely imaginary*; that have no real basis except in *abnormal minds*. These “diseases” vary in all shades and degrees of severity and importance, from a hysterical headache, that departs as soon as the thoughts are directed to something else, to a chronic bodily deformity, following a continued hysterical contraction of the muscles, it may be for months or years.

Many of these imaginary diseases are transitory; some are “permanent,” “incurable.”

No amount of Eddyism will cure such a case, until that case “believes he *can* be cured, and *will* be cured.” In that selfsame hour he will be made whole.

3. There are *real diseases* arising independent of the mind, and in spite of the mental and emotional states.

Such diseases, if transitory in nature, and there are many such, may be greatly augmented (to all appearances) by depressing thinking and emotions; or much benefited by hopeful and encouraging thinking and feeling.

Hence many such diseases may be prolonged, or shortened in an appreciable degree, by the mental state.

All *severe real diseases* are increased in severity by depressing states of mind, and lessened by hopeful states. This difference is often the measure of the possible recovery of the patient in extreme cases; hence it may mean life or death.

4. In some exceptional cases the state of mind seems to have originated, or at least fostered, real diseases, both in their inception and development.

In smallpox and cholera epidemics, there seems to be little question that a depressed and fearful state of mind fosters and predisposes to an attack of a disease that is unquestionably real.

On the other hand, it may be said that instances are not wanting where the real disease has attacked individuals *wholly free from fear or depressing thoughts and emotions*, in so far as we may judge.

Nothing new has been said in the above. On the contrary, all that has been stated was well known before Mother Eddy was born.

How happens it, then, that her cult has so profited by these well-known facts and principles in psychology and hygiene? By bad logic and worse science.

It is not always easy to state the exact boundary line between imaginary disease and real disease. Every physician has felt the truth of this many times.

But it is equally true that there are some diseases, so-called, that are *wholly imaginary*, and every physician has seen many such cases. Eddyism always cures these patients. On the other hand, there are many diseases that are *undoubtedly real*, and no amount of "mental states," "beliefs," or "emotions," can disillusionize or remove them.

Eddyism has run up against these real diseases many times, and has always failed; and will always fail. If Mother Eddy, or any of her "faith healers" will cure a case of smallpox on the day the eruption appears, and restore the skin to its natural healthy state *at once*, we will forgive them for their belief that there is no skin, no smallpox, no pain, no pustules, and no bacillus. They can't do it, and they never have, and never will. They cannot make one hair white or black in such a case, with all their incantations, mummeries and laying on of hands. There is not one authentic instance of such a cure. If there is, give us the data, particulars, observations and results; and let them be first hand, not filtered through a net of "he saids," and "according to reports."

But what has all this to do with Eddyism? A very great deal. In the first place, this cult confounds two distinct things; two essentially different facts and conditions: "imaginary disease" and "real disease."

Because of the close resemblance already noted, this confusion is not difficult in the popular mind.

The gross ignorance of "educated people" in regard to disease, its causes and conditions, is not equaled by popular ignorance on any other topic. The most common facts of physiology and hygiene are a sealed book to the majority of "educated persons."

No wonder, then, that "all diseases look alike to them." They see a severe case of imaginary disease cured in an exceed-

ingly short time through a change in the mind of the patient. To them it is a cure of a *real sickness*, of a *real disease*. No amount of explanation will disabuse their minds of the fallacy.

And Mother Eddy's *dictum*, that *all diseases are imaginary*, is good for them to the end of time.

Miracles have come back: all diseases may be cured by "mental science."

Not every "intelligent person" can become a convert to Eddyism. Those who have once had a real glimpse of *the non-identity of imaginary and real diseases*, cannot be misled by the wordy, confusing, contradictory, and mutually self-destructive statements of "*Science and Health*." But the majority stand on slippery places, and are liable "to fall into error."

Again, "A merry heart doeth good like a medicine: but a broken spirit drieth the bones." This was said some ages prior to the appearance of *Science and Health*, and holds as good today as ever it did.

All Mother Eddy's hortatory expostulations, "to think healthy thoughts," to preserve a cheerful and hopeful frame of mind, not to give way to depression, anxiety and fear, *are very ancient as well as very excellent rules of health*.

That these rules are not more strongly emphasized, more generally taught in all educational institutions, more practically insisted upon in everyday life, is possibly as much the fault of the medical profession, as of the teaching authorities.

Eddyism will continue to flourish, to grow and spread, as long as ignorance of these fundamental laws of cure and of health is allowed to exist.

A sane, educated, well-balanced mind cannot receive Eddyism. Ignorance; inability to reason logically and sincerely from premise to conclusion; inability to appreciate the value of contradictions in reasoning; these are the basis of Eddyite Philosophy.

Inability to discriminate between things *essentially different*, is the basis of its belief.

Advocacy of some of the most important facts in therapeutics and hygiene is the basis of its success.

Lots of people will swallow a large dose of foolishness, if only it has a mild flavor of truth.

In Eddyism, the amount of foolishness is stupendous; but the flavor of truth, though slight, is genuine.

DIAGNOSIS OF DISEASES OF THE GALL-BLADDER AND DUCTS.

BY GEORGE T. MOSELY, BUFFALO, N. Y.

(Read before the Homœopathic Medical Society of New York State.)

IN presenting this paper, I do not pretend to advance any original ideas, nor even any large personal experience, but simply to present, in as condensed a form as possible, a digest of facts accumulated for my own information through a review of various works of writers on the subject during the past two or three years. Prominently among the authors quoted I would mention Kehr, Fenger, Mayo, Murphy, Robson, Ewald, Brewer, Moynihan and Musser.

It is a common remark of Prof. Deaver that the medical profession must learn pathology, not from the pathologist, but from the surgeon, and a glance over the history of abdominal surgery proves the correctness of his statement. It was the surgeon, not the pathologist, who determined that peritonitis was an infectious, and not a sporadic, disease. He then located the three chief points of infection, the Fallopian tubes, the appendix and the gall-bladder, and beginning with the first named organs has persistently developed the true pathology of their diseases and their surgical treatment. After the Fallopian tubes came the appendix, and through much tribulation has the pathology and surgery of that little diverticulum been placed upon a solid basis. It is within the recollection of many of us that as typhlitis, perityphlitis and perityphlitic abscess, appendicitis was treated by the general practitioner, and only when an abscess pointed toward the surface were the services of the surgeon called into requisition to evacuate the pus. Now, thanks to the labors of the abdominal surgeon, the pathology of the appendix is so clearly understood that we unanimously agree in removing the organ when diseased, before ulceration, suppuration or gangrene has occurred. We now come to the third point of infection, the gall-bladder. The analogy between it and the appendix is striking, both from an anatomical, pathological and surgical point of view. Formerly, diseases of the bile passages were classified only as catarrhal

jaundice, calculus and cancer, and treated by internal medication, with results most unsatisfactory. We now differentiate the morbid conditions more exactly and realize that most of them are curable only by surgical treatment; many physicians being radical enough to relegate all diseases of these organs to the class of surgical disorders.

Having progressed thus far in the study of the diseases of the gall-bladder and ducts, we now meet the last proposition as in the case of the appendix. If operative procedures offer the best chance of cure, and if an early operation is comparatively safe, while later it is fraught with additional danger and accompanied by vastly greater mortality, is it not wiser to operate early, as soon as a positive diagnosis has been made, and by so doing give the patient every chance for his life and an ultimate cure. I think no one will deny that this plan has been demonstrated the best regarding the appendix, and I believe we are now ready to adopt and advocate a similar creed respecting the gall-bladder and bile ducts. If this be true, it is our business to study carefully the anatomy, physiology, pathology, and symptomatology of these organs and their diseases, so that an early diagnosis may be arrived at and the case given the proper treatment at a time when the best results can be achieved, instead of waiting, as is often done, until the symptoms become alarming, and in desperation turning over to the surgeon a case already practically hopeless.

It is now generally conceded that all diseases of the biliary passages, including gall-stones, but excepting new growths, are caused by infections; the toxic organisms entering the common duct from the duodenum or reaching the bile ducts in the parenchyma of the liver through the blood circulating in that organ. My personal belief is that the latter is the only way in which infection occurs. From a study of the anatomy and physiology of the organs and biliary discharge into the duodenum, and the fact of the ordinary lack of germ growth in the duodenum, I am convinced that the infection takes place in the portal system. When an excessive and virulent germ growth occurs in the intestinal tract, as in typhoid fever, the organisms are taken up by the blood in the mesenteric veins and carried by the portal vein into the liver. There they transmigrate into the biliary vessels, thus producing infection of the bile ducts

and gall-bladder. How the bile, which is *per se* essentially aseptic and antiseptic, can become infected, we can readily understand by comparing it with blood under similar circumstances. The bile as it leaves the liver is sterile and has antiseptic properties, preventing undue germ growth in the intestines and fermentive and putrefactive changes in the contents of the upper bowels. But this is healthy *live* bile. If from any cause this circulation in the bile duct is impeded, as, for instance, by a gastro-duodenal catarrh spreading by continuity of tissue to the common duct and causing occlusion, the bile stagnates, becomes mixed with mucus, loses its vitality, and becomes virtually *dead* bile. Then like dead blood pocketed in a wound, it becomes a good culture medium instead of an active germicide, and infection occurs. We can thus see the rational function of internal medicine in preventing infections of the biliary passages and throttling these diseases in their incipency.

Before taking up the diagnosis of the different diseases of the biliary passages, let us briefly review the various symptoms which are more or less common to all of them, to see how each is produced and what it portends. In inflammatory conditions of the gall-bladder and ducts, as in those of the appendix or other abdominal organs, we have pain, tenderness, rigidity of overlying muscles, tumor, vomiting, fever, and sometimes general sepsis. In addition, we have jaundice with clay-colored stools and bile-stained urine, sometimes enlargement of the liver, spleen and head of the pancreas. In addition, we may have ascites, and in multiple gall-stones we may get a bruit, or crepitus, by rubbing them together.

Pain associated with lesions of the bile passages is acute and paroxysmal in character, usually referred to the right upper quadrant of the abdomen, often radiating toward the umbilicus, tip of sternum, iliac region or to the back and shoulder-blade. In rare cases the pain may be referred to the epigastrium, the left upper quadrant of the abdomen, or the umbilical region alone. It may even radiate into the neck or testes. With inflammatory conditions of gall-bladder and ducts there is more or less fixed pain beside the paroxysmal. Now, as to the method of production of the pain of gall-stones: The mere presence of gall-stones in a healthy gall-bladder does not produce pain.

The gall-bladder may be greatly distended by stones for long periods of time with no pain, and discovered only by accident. It is only when the gall-bladder becomes inflamed that pain results. Fecal masses in a normal rectum produce no pain, but in a severe proctitis cause intense pain and tenesmus. An enterolith may repose peacefully in the appendix till that organ is inflamed and congested, when it excites the appendix to an effort to expel it, and severe appendicular colic ensues. Thus, when gall-stones are present in an inflamed gall-bladder or duct, an expulsive spasm is excited and the paroxysmal pain of biliary colic ensues.

Tenderness may be elicited by pressure just below the end of the ninth rib, or at Mayo Robson's point, the junction of the outer one-third and inner two-thirds of a line drawn from the ninth rib to the umbilicus. The liver, also, may be tender to pressure of the fingers hooked up under the border of the ribs.

Rigidity of the rectus muscle on the right side is found in the acute inflammatory conditions, as rigidity of muscle occurs elsewhere in inflammation of abdominal viscera.

Tumor of a pear-shape, lying superficially in the right hypochondrium, allowing of a limited lateral movement, smooth and elastic, is a distended gall-bladder. If there is no pain or fever, it is probably filled with bile, mucus, or possibly calculi. The latter may often be felt, or by manipulation made to produce the friction crepitus or bruit, which may be felt or heard with a stethoscope. If with tumor of the gall-bladder there is increasing jaundice, there probably is obstruction of the common duct by stone or swelling. If marked tenderness be present with rigidity of the rectus, there is an inflamed gall-bladder. A hard nodular mass in this location without pain, fever or jaundice, may be cancer, enlarged lymph nodes, or possibly syphilitic glands or gumma. The absence of palpable tumor does not necessarily exclude the possibility of a distended gall-bladder, for it may occur in a location high up under the edge of the liver, so as to escape detection by touch. I, last month, operated a case where thirty-six stones were present, and the gall-bladder could not be felt owing to its high position.

Jaundice is a symptom the significance of which seems to be most frequently misunderstood. A gall-bladder may be full of stones without jaundice; a stone may be impacted in the cystic

duct, causing a hydrops of the gall-bladder and large tumor, with no jaundice; there may even be a severe septic cholangitis, with little or no jaundice. In 50 to 70 per cent. of operable cases of diseases of the bile passages there is no jaundice. A mild temporary jaundice often occurs from a gastro-duodenal catarrh affecting the common duct, the so-called catarrhal jaundice. Transitory jaundice with colic often occurs with the passage of stone through the ducts into the bowel. Intermittent jaundice, with intermittent fever and chills, the so-called *fièvre intermittente hépatique* of Charcot, denotes a movable calculus imprisoned in the common duct. Jaundice with fever, chills and sweating, pain, tenderness and enlargement of the liver, is indicative of septic cholangitis. Regularly increasing jaundice with enlarged liver, but no distention of the gall-bladder, suggests impaction of stone at the intestinal extremity of the gall duct. If jaundice follows an attack of colic, we may be reasonably certain of the presence of calculi. Jaundice always occurs in the impaction of stone in the common or hepatic ducts, in inflammatory swelling, producing occlusion of those ducts, or when pressure from new growths in them or about them obstructs their patency.

Fever, as might be expected, is found in inflammatory conditions of the gall-bladder and ducts. Fever of a mild, transitory character is noticed in temporary impaction of stones during their passage through the ducts. The intermittent fever previously referred to occurs when a stone lodged in the common duct is not firmly impacted, but causes alternate occlusion and patency of the tube, the so-called ball-valve impaction of Kehr and Fenger.

Excreta, the stools and urine, show simply the presence of jaundice. The stools are clay-colored and urine pigmented with bile, when jaundice is present. Though exhaustive studies of the urine and feces have been made by Edsall and others, I do not find that analysis of the excreta shed any further light upon the morbid processes in question.

Associated organs: As might be expected from their propinquity and the intimate relation of their blood-supply, the liver, pancreas and spleen suffer secondarily in diseases of the biliary channels. We find the liver enlarged in impaction of stone in either the common or hepatic duct; enlarged, painful and

tender in cholangitis. We may even have multiple abscess of the liver when there is severe infection by the streptococcus. The spleen enlarges often from pressure upon its vein, interfering with the return blood current, or in general sepsis, which often follows a septic cholangitis. The pancreas is affected, like the liver, from interference with its duct and extension of septic infection through it to the organ itself. Thus we have acute pancreatitis with severe epigastric pain, rigidity of recti muscles, vomiting and collapse coming on during an obstructive jaundice; chronic interstitial pancreatitis with tenderness and enlargement of the head of the pancreas following cholelithiasis and cholangitis. We even find hæmorrhagic pancreatitis with fat necrosis, complicating the diseases of the biliary system.

This brief review of the *rationale* of the production of the principal symptoms places us in position to more readily and quickly grasp the differential diagnosis of the various diseases affecting the gall-bladder and ducts. For convenience of classification we follow Brewer in dividing them into calculous diseases, inflammatory diseases and new growths.

Gall-stones produce symptoms only when the gall-bladder is inflamed or when they become lodged in the ducts, impeding the biliary circulation. The symptoms differ according to the duct occluded and the permanence of the occlusion. First, then, when a stone is impacted in the cystic duct, the symptoms are negative, excepting the enlargement of the gall-bladder, which may attain an immense size, but is often discovered only by accident. When the impaction occurs in the hepatic duct, the gall-bladder is not enlarged, but there is pain, often vomiting, jaundice, swelling of the liver, and, if it persists, the gradually developing symptoms of cholangitis, which we will discuss later. Obstruction of common duct by stones may be acute, chronic or partial, *i.e.*, intermittent. In acute obstruction of common duct by stone, we have severe paroxysmal pain, radiating to the back, vomiting, jaundice, and usually fever. If the stone passes into the duodenum the symptoms are quickly relieved. Chronic impaction of the common duct has a history of symptoms of the acute attack, with persistent progressive jaundice; pain is slight or absent, with enlargement of the liver and sometimes of the spleen. Con-

ditions may last an indefinite time, producing malassimilation and intestinal indigestion. A movable stone in the common duct, the so-called ball-valve condition, has a set of symptoms all its own and so marked as to be pathognomonic. The keynote is intermission of all symptoms, so marked as to give an impression of malaria. Attacks come on with pain, chills, fever and sweating, jaundice, and sometimes swelling of liver and spleen. The stone moves, allows the bile to flow out, when the symptoms at once subside, reappearing when the stone again blocks the duct. This constitutes the *fièvre intermittente hépatique* of Charcot, previously mentioned.

The inflammatory conditions comprise, inflammation of the gall-bladder—cholecystitis acute, subacute and chronic; and inflammation of the ducts and biliary vessels—cholangitis. In cholecystitis there is no jaundice or swelling of the liver and spleen; but with severe pain there is tenderness and swelling of the gall-bladder. In the acute form the pain is intense, with vomiting, fever, chills, sweating, and muscular rigidity. This condition often is an inflammation of the most severe type, rapidly producing necrosis and gangrene of the bladder walls, perforation, septic peritonitis and death. When following typhoid, it may be easily mistaken for perforation of the bowel. Subacute cholecystitis is a less severe inflammation of the gall-bladder, usually due to the presence of gall-stones and infection. Pain is paroxysmal, with fever and vomiting during attack, and tenderness over the gall-bladder. Chronic cholecystitis follows the acute form, with a gradual abating of symptoms, leaving only slight pain, but a tender, enlarged gall-bladder, the contents of which are often purulent or mucopurulent. Cholangitis follows infection of the bile ducts, especially where there is obstruction of the common or hepatic duct by stones. Pain is more constant, less of the colicky character, may be slight. There are fever, chills and sweating, with the extreme prostration of general sepsis. Jaundice is present in varying intensity. Liver is swollen, tender and, when intrahepatic vessels are affected, painful. The spleen is enlarged from the condition of sepsis, and there is apt to be a secondary albuminuria with casts. This condition is often rapidly fatal when the infection is caused by some virulent germ like the streptococcus.

New growths of the biliary passages include primary cancer of the gall-bladder and tumors of the cystic, hepatic and common ducts; which latter are very rare and practically impossible to diagnose, so we may pass them with a word. Obstruction of the common duct is also produced by growths of neighboring organs occluding the duct by external pressure. In cancer of the gall-bladder there is absence of pain, fever and jaundice in the early stages. Later there may be pain, and when the portal glands enlarge, jaundice, ascites and swelling of the liver and spleen from pressure on the common duct, portal and splenic veins. The tumor at the site of the gall-bladder is hard and nodular; this, with the cachexia and asthenia, makes the condition easy to diagnose. Tumors of the viscera also begin without pain or fever, but the tumor does not occupy the location of the gall-bladder; jaundice and swelling of the liver are present,—early and progressive. The growths are most often malignant, but may be tubercular, syphilitic or simply glandular. The enlarged head of the pancreas may cause pressure and jaundice. The differential diagnosis of these various growths is often extremely difficult, but various laboratory tests are of aid in properly classifying them. The tuberculin test often settles the question of tubercular glands; lymphocytosis, developed by a differential blood-count, suggests syphilis, which a course of specific treatment may clear up and corroborate the diagnosis. Rapid growth with constitutional symptoms indicates malignant disease; but in any event the important point is to distinguish the presence of extraneous growths from inherent disease of the gall passages, and that, I think, is ordinarily practicable.

The discussion of new growths outside of the biliary passages, which produce disease of those organs, naturally brings us to the differential diagnosis of other intra-abdominal conditions simulating disease of the gall-bladder and ducts. This, however, is too big a subject to be entered into in detail in the time at our disposal. I will simply mention some of them, when the similarity of symptoms and points of differentiation will at once suggest themselves. Appendicitis with the point of an elongated appendix attached to the parietal peritoneum high up toward the umbilicus; Dietl's crises accompanying floating kidney on the right side; tabetic crises of gastro-

hepatic type; diaphragmatic pleurisy or rheumatism. These four conditions have occurred in my own experience, so I realize how the symptoms can simulate gall-bladder disease. Different authors have mentioned also the following conditions: Gastric and duodenal ulcer, cancer of the pylorus, renal colic, intestinal obstruction, intestinal colic, gastropsois and dilatation, gastric neurosis, and the various forms of pancreatitis.

Before leaving this subject, I would like to add a word regarding the laboratory tests in these conditions. If we are to make progress in the diagnosis and treatment of complicated abdominal diseases, we need every adjuvant at our command; and I suggest that, as a routine in doubtful cases, a thorough blood examination be made. Hæmoglobin and erythrocytes are diminished progressively in obstructive jaundice, the blood-count often giving indication for operation, while the hæmoglobin estimation gives valuable information as to the ability of the patient to survive a serious operation. Leucocytosis is present in acute cholecystitis and cholangitis not due to the typhoid germ. Its presence excludes malaria and tuberculosis, as well as typhoid. It is often found in streptococcic or bacilli coli infection. The presence or absence of the plasmodium malariae distinguishes between the existence of a ball-valve calculus and possible malaria. Lymphocytosis is strongly suggestive of syphilis, if enlarged syphilitic glands are suspected. The time necessary for coagulation to occur in a blood sample is also instructive, as it is much delayed in jaundice, and the test indicates the necessity of preliminary treatment by calcium chloride to increase coagulability and prevent hæmorrhage during and after operation. Gastric lavage and analysis of the stomach contents is the best means of diagnosing dilatation or cancer of the stomach. Hyperchlorhydria usually accompanies gall-stones, and is strongly suggestive of that condition.

In conclusion, may I be permitted to quote two or three axioms which I have noted in my reading, and which seem worthy of a place in our memories in connection with this subject:

"The studies of the writer have impressed him with the great frequency diseases of the gall-badder and ducts have to do with the termination of life. In many cases ascribed to senility, nephritis, tuberculosis and cardiac disease, death has not been due to these affections, but to terminal infections, the

source of which was in the biliary apparatus, and which should have been prevented by removal of the primary foci.”—J. H. Musser.

“As a cause of chronic distress and disability in adult life, diseases of the gall-badder nearly equal in frequency those of the appendix, while in later years the gall-bladder undoubtedly takes first place. It has been said that 5 to 10 per cent. of adults have gall-stones, but the majority do not have symptoms. I am convinced that many times we physicians do not attribute symptoms really present to their proper source in the gall-badder. We too often make the indefinite diagnosis of dyspepsia and indigestion.”—William J. Mayo.

“Gall-stones do not present symptoms until there is infection of the gall-bladder or ducts. When we are able to make a diagnosis of gall-stones the case is already a surgical one, and should no longer be treated medically.”—Frank Billings.

POST-OPERATIVE PNEUMONIA.—Holmes, Asheville, N. C., reports a case of post-operative pneumonia following ether anæsthesia of about one hours' duration for unilateral castration and circumcision. The patient took the ether well, with the exception that the secretion of mucus was extremely profuse during the whole time of its administration, at one time early in the anæsthesia, causing a marked cyanosis. On the day following the operation symptoms of pneumonia set in, and the disease ran its ordinary course. The patient recovered. The author covers the extensive literature of the subject, quoting from numerous authorities, and arrives at the following conclusions:

1. That it is more correct to speak of post-operative pneumonia than it is to speak of ether pneumonia; for statistics show that pneumonia following operations was as frequent, or more so, before the days of anæsthesia, as at the present time; and also, that it is as frequent now, when local anæsthesia is used for major operations, as when a general anæsthesia is employed.

2. That if pneumonia is more liable to follow the use of ether than it is of chloroform, which is at least a question, the difference is so slight that it does not begin to counteract the much greater danger with which the administration of the latter is associated.

As prophylactic measures against the occurrence of pneumonia the author urges a careful selection of the drug that is to be used, in order to be sure of a pure product; the use of a fresh, perfectly clean inhaler for each case; the keeping of the head lowered, or turned to one side if there is any tendency to become choked during the anæsthesia, so as to avoid the inspiration of mucus from the throat; careful avoidance of chilling of the surface of the body during operation, and the removal of all damp garments immediately after the operation, and before putting the patient back to bed.—*New York and Philadelphia Medical Journals*, March 19, 1904.

EDITORIAL.

PROPOSED VICIOUS LEGISLATION.

WE almost invariably find that those who have been placed by the force of circumstances in the position of reformers, feel it incumbent upon themselves to introduce measures and propose methods which have no other warrant than the necessity for justifying their own position. Even if no new measures were required, and even if the simple strict fulfilling of existing duties would be sufficient to constitute an acceptable reform, this would not be enough; something new and, if possible, striking must mark the reformer's progress. New brooms sweep clean, and the activity of such persons is usually in the line of excessive and, not infrequently, misdirected zeal. It manifests itself very constantly in the form of proposed new legislation directed against seeming abuses. Legislation appears to many as a panacea for all the ills of the body politic, and recourse is had to it on the slightest provocation. We have often had occasion to refer to the general evils of over-legislation, and the specific dangers of special legislation, to meet the fancied requirements of particular conditions.

An instance of this mischievous tendency has lately been presented in the reported attitude of the Board of Health in Philadelphia, in view of the continued existence of smallpox in the city. We quote from one of the daily papers: "The recent outbreaks of smallpox were caused by exposure to the contagion through the ignorance of physicians in not recognizing the disease. The officials of the Health Department are indignant at the results of these blunders. They believe that physicians who make them should be disqualified as practitioners. The present law in such cases is deemed inadequate, as it only provides a fine. Director Martin is preparing an amendment to the present health laws, which, it is understood,

will contain a provision that when a physician fails to properly diagnose a contagious disease the offender shall not be allowed to practice medicine until after he shall be examined by the State Medical Board to determine his professional fitness."

It would seem at first sight that there was a slight show of reason in the proposed legislation, and yet on closer examination even that vanishes, and the measure stands before us in its naked absurdity.

In the first place, it is special legislation of the most flagrant kind. Not only is a particular profession singled out as the object of the law, but one particular branch of its duties again picked out, and that not the most important, either to the individual or to the community. Although there may be some satisfaction, when dying, to know that your disease has been correctly diagnosed, some of us, we think, would be unscientific enough to prefer to be restored to health from a disease which had baffled the diagnostic skill of our physician. The specialization of this law-making goes still farther; the diagnostic skill is to be limited to contagious diseases. This is a very proper limitation were there any justification for the whole suggestion, but it is a striking example of the lengths to which special legislation is liable to be carried. Therein lies the greatest danger.

Law is founded so much upon precedent that we should seek to prevent any precedent dangerous to our personal liberty from creeping into the law books. The principle once admitted that a special part of a special duty of a particular profession, business, or trade, may become the subject of special legislation, the door is thrown open for the widest abuses at the hands of enthusiasts and faddists. The race of well-meaning cranks is not yet extinct, and many of its members are sufficiently sane on most subjects to enable them to gain influence and position whereby they may further their extreme views to the detriment of individual liberty, if this principle of special legislation be allowed to go unchallenged.

On these general grounds we are unalterably opposed to the suggested legislation. But let us examine it more closely. Is it necessary? Some mistakes in diagnosis have been made, but is that in itself, even keeping in view the danger incurred by the community by such mistakes, sufficient to call for the

drastic legislation proposed. Doctors proverbially disagree, and the differences of diagnosis in regard to other conditions not contagious, but equally as dangerous to the individual, are much more numerous than in the case of the contagious diseases. A failure to recognize the incipient stage of a contagious disease may not proceed from ignorance on the part of the physician (except in the eyes of those ready to know it all, and to make a snap-shot diagnosis on all occasions), but from obscurity and want of definiteness in the case. Between his desire to protect his patients from unnecessary hardships on the one hand, and his fear of seeming negligence of his duty to the authorities on the other, with the possibility of his being fined by the one party, or sued for damages by the other, in case of a mistaken diagnosis, the conscientious physician certainly is already rather uncomfortably situated between the devil and the deep sea. Even in the case of physicians of whose diagnostic skill there can be no question, errors in the diagnosis of contagious diseases have occurred; how much more likely are such liable to happen to one whose shorter practice and limited experience have prevented him from acquiring that practical knowledge which has failed to guard even his more favored colleagues from mistakes? To the doctor called to his first case of smallpox the problem is as difficult, relatively, as a sudden case of beri-beri or of bubonic plague would be to an old experienced physician who had known of such diseases only through books.

The physician stands before the public at present legitimized by the double stamp of college and State Board, and to humiliate such a one by even a temporary suspension of his license to practice his profession, and by an additional third examination into his "professional fitness" in general, would be not only an unjust, and, we think, an illegal, hardship, but an irrational and unnecessary procedure.

The fine, according to the present law which is alleged to be inadequate, has only reference to wilful neglect to report recognized contagious diseases, and has never, so far as we can recall, been imposed as a punishment for failure to report by reason of inability to recognize the disease. The latter would be an unjust imposition, while the former is just and reasonable.

According to the article above quoted, upon the wording of which, however, too much stress must not be laid, a single failure to recognize a contagious disease would be enough, according to the proposed legislation, to shut off the guilty party from practice until he had been subjected to another examination by the State Board. We can easily see to what complications this would inevitably lead. What would perhaps be inexcusable on the part of the physician in the period of the full development of a contagious disease, could not only be found excusable, but necessary, in the earlier stages, before the pronounced symptoms had manifested themselves. We have no doubt that at the present time the number of typhoid cases reported is greatly swelled by the eagerness of some to escape a possible fifty-dollar fine. "Any old thing" resembling the onset of typhoid is promptly reported, so as to be safe in any event. Besides the security thus obtained, the possibility of gaining reputation as an aborter of typhoid must not be lost sight of. As there are no hardships for their patients resulting from this course except perhaps a visit from some inspector to examine the drainage, physicians obey the law with commendable conscientiousness; but in the case of smallpox, diphtheria and scarlet fever the situation is different. There must be a natural hesitation on the part of the physician, if he regards the interests of his patient as well as those of the community, to report a suspected case. He very properly, we think, waits before reporting such a one, and subjecting it and its surroundings to the hardships of a stringent quarantine, or to removal to the Municipal Hospital, until the case is no longer doubtful. During the time of observation, and so long as the outcome is in doubt, it is, of course, his duty to take all precautions suggested by the possibility of its being the dreaded disease. No snap-shot diagnosis is allowable under the circumstances, and the many cases of mistaken diagnosis reported even during the past winter, on the side of over-anxiety, should warn us to be careful. We well remember in the epidemic of smallpox in '71, '72 and '73, how, on the part of many, every backache was regarded as the forerunner of smallpox, and its relief a triumph in aborting the disease. At that time the quarantine regulations were exceedingly lax, and the reporting of a case did not entail the distress which it does at

present. We see then how unjust would be the proposed legislation.

Where gross ignorance exists, which dare not, however, be presupposed, some other means can surely be found to reach the delinquent. The new law would work greatest hardship and humiliation to the most conscientious physician and to him least deserving of such treatment. Were the State Board to make it their *first* duty to eliminate from the profession the uneducated and unlicensed, those against whose ignorant and injurious activity the dear public is ostensibly to be protected, such legislation against graduated, licensed physicians could never suggest itself.

WHY STUDENTS OF MEDICINE SHOULD SELECT THE HOMŒOPATHIC SCHOOL.

THE *Medical Century* of March 1st contains three excellent essays entitled, "Why Students of Medicine Should Select the Homœopathic School." This is an opportune time for the discussion of this subject. Soon the students who have completed their courses of studies in the universities, colleges or preparatory schools will receive their diplomas, and will be called upon to decide what business or profession they will enter. Every year five thousand young men and women decide to enter upon the study of medicine. Many among these are not sufficiently acquainted with the requirements of a medical education to enable them to form an intelligent opinion as to which school would best fit them for their medical career. We shall assume that the prospective medical student appreciates the responsibilities involved in the practice of medicine. That it is his desire to obtain, in so far as possible, a thorough and practical knowledge of every means which will aid him in preventing and curing disease. We shall further assume that he will base his decision on facts rather than on fancy, on conviction rather than on tradition and environment.

There are 20 homœopathic colleges in this country. These are located in Boston, New York, Philadelphia, Baltimore, Cleveland, Cincinnati, Ann Arbor, Detroit, Minneapolis, Chicago, Iowa City, St. Louis, Louisville, Kansas City, Denver

and San Francisco. The laboratory and clinical facilities in these institutions are fully equal to those of the average old school college, and the statement that the standard of instruction is of a higher average order than in the 123 old school colleges is well within the truth. The first college to establish a three years' compulsory course in medicine was a homœopathic college, and it antedated this feature of old school instruction by twelve years. The American Institute of Homœopathy was the pioneer in the movement for a four years' medical course and for a higher educational standard in the entrance and graduation requirements. There are in the United States 84 general hospitals, 61 private hospitals, 58 sanatoriums, 56 dispensaries, all avowedly homœopathic, and 66 other institutions, State, municipal, etc., wherein homœopathic treatment is employed. Opportunities for clinical study and investigation are therefore ample. The visiting physicians and internes of these institutions are naturally chosen from the graduating classes of homœopathic colleges. The smaller classes bring the student into closer personal contact with the professors, as well as increase his chances for hospital appointments on graduation.

The homœopathic colleges are the only medical schools that include in their courses the entire field of medicine. The old school institutions teach their students but one part of medical therapeutics. Their instruction in *materia medica* and therapeutics deals only with the so-called physiological action of drugs, and disregards their specific dynamic action. That drugs can produce cures by specific dynamic stimulation has been demonstrated, and has been recognized by many of the foremost investigators in scientific medicine. The allopathic medical schools, however, as well as the rank and file of old school practitioners, are not yet prepared to accept this truth so contrary to their traditions and prejudices. It is to be regretted that they thus wilfully exclude themselves from this great department of medical science. The eclectic schools are also incomplete in their medical instruction. While they appreciate the value of a knowledge of the dynamic action of drugs, they confine their studies largely to vegetable remedies and fail to utilize the therapeutic effects of the many valuable remedies derived from the mineral kingdom. The so-called osteopathic, neuro-

pathic, psychopathic, and other similar institutions, limit their instruction so closely to special departments of medicine that they cannot be considered as giving a general medical education. Whatever value they may have is available to the post-graduate rather than to the under-graduate student. The accepted definition of a homœopathic physician is, "one who adds to his knowledge of medicine a special knowledge of homœopathic therapeutics and observes the law of similia. All that pertains to the great field of medical learning is his by tradition, by inheritance, by right." This is the educational standard which the American Institute of Homœopathy has set before our colleges. They must and do teach chemistry, biology, physiology, anatomy, pathology, surgery and diagnosis equally as well as other medical schools. This fact is recognized by law, and in many States the board of medical examiners submit the same questions on these subjects to both allopathic and homœopathic students. Their instruction in the department of materia medica and therapeutics must cover the physiological action of drugs and the principles of preventive and palliative medicine. When they have thus thoroughly and completely covered the field of medicine as taught in the old school colleges, they must go further and give the student a more intimate knowledge of drug-action as shown by provings on healthy human beings, and how to utilize this knowledge in the cure of the sick according to the principle of similia. We do not claim that homœopathy is all of medicine, but we do claim that no medical course is complete that does not include this large and essential part of drug therapeutics.

The fundamental features of homœopathy are:

1. Disease produces certain changes in the body which are manifested by symptoms—subjective and objective—or what we call the totality of the symptoms.

2. Drugs produce certain changes in the body which are manifested by symptoms—subjective and objective—and an exact knowledge of drug-action must be obtained by experimentation on healthy human beings.

3. The curative relation between these two sets of phenomena is expressed in the principle "*similia similibus curantur*."

Homœopathy is therefore a general fact—a principle of nature. It is practical, simple and intelligible, it is a guide to the se-

lection of a remedy for all time and applicable to all forms of disease.

Homœopathy has been wilfully or ignorantly represented by its opponents as being what it is not. Homœopathy is not an irregular practice. It is founded upon scientific investigation and a scientific principle. Its colleges are chartered by the State and its practitioners are examined and licensed by legally constituted authorities. Homœopathy is not unscientific practice. It is not opposed to pathology or diagnosis. It is not "little pills"—they are simply convenient vehicles for the pleasant administration of medicines. It is not an infinitesimal dose; this is a popular conception fostered diligently and perhaps ignorantly by the opponents of our system. "*Similia similibus curantur*" says nothing of the dose, though clinical experience has shown that it is preferable to administer the smallest dose that will cure. It is not quackery; quackery is a deception, and the methods of homœopathy are open to the world, and we seek the fullest investigation by physicians, students or patrons. To quote one of the essays previously referred to, "By homœopathy is not meant, for example, as our opponents assert to ridicule us, that if a man be poisoned he must take more poison, that to remove a sliver from a finger another must be introduced, that to cure a burn one must thrust the burnt part into the fire, nor to strike the place that was struck, nor to swallow a tapeworm to remove one. These interpretations of homœopathy were written with the finger of ignorance on the ragged page of prejudice and we stoop not to notice them further." To come to the practical point, what has homœopathy accomplished? The most potent factors in the development of modern medical therapeutics have been the influence of Hahnemann and of homœopathy. Osler attributes "above all to the valuable lesson of homœopathy the progress in the battle against polypharmacy, or the use of a large number of drugs, of the action of which we know little, yet we put them into bodies the action of which we know less." A pamphlet published by the American Medical Association in 1899 contains the following statement: "Homœopathy has done a noble work; it has served its purpose well. Look back a hundred years to the time of its birth, and contrast the methods of practice then in vogue with those in favor to-day,

and tell me whether a stupendous revolution has not been wrought and largely through the instrumentality of Samuel Hahnemann."

Hahnemann deserves the credit of having insisted upon the adaptation of a drug to the diseased individual, not to the disease *per se*. For years the homœopathic school was condemned and ridiculed for upholding such a doctrine. That the dominant school has at last accepted this truth is shown by the following quotation from the London *Lancet* of February 24, 1900: "That the physician has to study not disease, *per se*, but the diseased man, is a truth which took us some twenty-two centuries to learn, but which Aristotle knew some 350 years B.C. Until fifty or sixty years ago disease was regarded as an entity distinct from the body to be expelled from it by drugs like a tapeworm, whereas we now regard it *as a state* affecting the entire man, body and mind, structure and function, and as this state varies with constitution, inherited tendencies, antecedents and surroundings of the man, it requires a corresponding variety of treatment. The wise physician adapts his treatment to each patient's peculiarities; to one he may give a certain drug, to another with the same disease a different drug," etc.

Hahnemann was the first to carry out the systematic testing of drugs on healthy human beings, in order to obtain an exact knowledge of drug-action. Many drugs have a decidedly different action on animal and on man. The fallacy of obtaining an accurate knowledge of drug-action by experiments on animals or diseased persons is therefore evident. We trust that for the good of humanity and of medical science, this principle of drug-proving which the homœopathic school has so long defended will soon gain general recognition among medical men of all schools.

Serum therapy, the most recent development of modern medicine, was said by Professor Rudolph Virchow to rest upon a homœopathic basis. Dr. Baradat, in a paper read before the British Tuberculosis Congress, tells us that the therapeutic value of natural serums is due to their "dynamic" action. That is, they are capable of exciting the resisting power of the cells against disease. The dynamic power of remedial agents is something new to practitioners of the dominant school of medicine.

Statistics might be quoted to an almost endless extent showing that the mortality-rate is lower, and the duration of diseases shorter, under homœopathic treatment than under any other system of medicine. Our opponents have said it is because we give no medicine. That does not alter the facts just alluded to. We refer those who are interested in this subject to a work by Dr. T. L. Bradford, of Philadelphia, entitled, *The Logic of Figures*. It is sufficient at present to quote the following from Dr. Osler: "Nobody has ever claimed that the mortality among homœopathic practitioners was greater than among those of the regular school."

Every individual who contemplates entering the medical profession for the purpose of earning a livelihood must consider the question, "Is the medical profession overcrowded?" This is not to be asked for purely selfish reasons. A man's duty to himself, his family, and to the social body requires that he should engage in some calling which will make him self-supporting. The old school journals and societies everywhere are urging that the field of medicine is already overcrowded. The number of graduates each year from old school colleges is far in excess of the demand. As a result many are compelled to abandon the practice of medicine, or to eke out an existence on an income less than that of skilled workmen in almost any mechanical trade. In spite of this excess of physicians of other schools, there is an ever increasing demand on the part of the public for homœopathic physicians. (This alone is a splendid testimony to the practical results of homœopathy.) The number of graduates of homœopathic colleges is scarcely sufficient to make up for the older practitioners who die or retire. So great is the demand for homœopathic physicians that the American Institute of Homœopathy in 1902 published the following statement: "The demand for homœopathic physicians throughout the United States far exceeds the supply. Thousands of small cities, towns and villages are unable to secure the advantages afforded by the homœopathic system of medical practice. Demands for graduates of this school of medicine are constantly reaching our twenty medical colleges. The demands for physicians come from every State in the Union. The American Institute of Homœopathy, mindful of her obligation to the public, not only calls attention to this public need, but also to the fact that there are twenty medi-

cal colleges in the United States thoroughly equipped to teach *all branches of medicine and the science and practice of homœopathy*. These colleges earnestly solicit and will welcome young men and women of good moral, physical and mental endowment, possessing a high school education or its equivalent, with an elementary knowledge of Latin."

There is but one homœopathic physician to eight old school physicians. In spite of this fact, in many communities 50 per cent. of the population are patrons of homœopathy. It is significant that there is a larger proportion of the educated and moneyed class among these.

To summarize and to conclude, we believe that students of medicine should select the homœopathic school for the following reasons:

1. It offers all that old school colleges can offer in the medical field, and more, since it adds thereto a knowledge of homœopathic materia medica and therapeutics.

2. By instructing the student in every department of medicine it enables him to be of greater benefit to humanity. The physician who refuses to utilize the homœopathic method only half tries to cure the sick.

3. It is a scientific system; its colleges and teaching facilities, laboratories, hospitals, libraries and journals are surpassed by none in the field of medicine.

4. It offers a useful profession that is not overcrowded, a competent living to all, and to those who are deserving fame and fortune.

G. H. W.

THE TRAINED CHILD'S NURSE.

THE children's welfare is always near to us. While we should ever be solicitous about the mental development of these little ones, still the care of the body is of greater importance than the cultivation of the mind during the tender years. We cannot refrain; the old axiom still explains the entire situation and so it shall be quoted: *Mens sana in corpora sano*. We only ask, Who is it that is responsible for the attainment of this result?

With many of the well-to-do, it is solely the child's nurse. The justice of this statement is attested to by the large number of children that are entirely in their nurse's hands. This

might be permissible under certain circumstances. Even when the nurse maid is only a convenience it is desirable that she at least have a practical knowledge of the care of children. She should know of what a child's dietary should consist and the importance of careful, regular feeding. She should know the early signs of the commoner diseases that occur at this time of life. She should have some conception of the ordinary rules of hygiene and not violate them as flagrantly as we so commonly witness. Unfortunately, the ordinary nurse does not embody these virtues. A mother recently told us that she raised her nurse along with her children, and could therefore unhesitatingly entrust them to her. Such a nurse is indeed a priceless acquisition to a household.

There is one qualification, however, that gives the fashionable child's nurse her credit. She speaks French. True enough, in many instances the worst *patois*; but who cares, so long as it's French.

Not so long ago we were both satisfied and content with entrusting the sick to the care of the good old women that went out to nurse, or to the relative in straitened circumstances. These were handy at getting a patient into a sweat, making poultices and administering clysters. At the present time, not even the poor will risk their lives in such hands, and if they cannot afford to employ a trained nurse, they will preferably go to a hospital, in case of critical illness. We do not advocate trained nurses for healthy children; but thinking parents are beginning to see the wisdom of entrusting their children to some one who will endeavor to keep them well rather than be capable only of looking after them when they have become sick.

Several institutions at the present time are taking in training capable, well-recommended young women, with the sole purpose of fitting them for just the kind of work detailed above. The course does not put them on the same plane as the regular trained nurse with from two to three years' experience, but it places them far above the ordinary domestic and puts them in a position to earn a fair living (twenty-five to thirty-five dollars per month "and found"). The demand for these nurses is steadily increasing, and, no doubt, as the importance of the subject is more generally recognized, there will be an increase in both the recruits and in the institutions offering the training.

C. S. R.

GLEANINGS.

SURGERY OF HYDROCEPHALUS; ILLUSTRATED BY ONE HUNDRED STEREOPTICON SLIDES.—(Ricketts.)—After condemning the medical and electrical treatment the writer offers the following surgical conclusions:

1. Excessive secretion of the cerebral meninges may occur in any form of animal life.

2. The various forms of vegetable life are subject to excessive local or general secretion to a fatal degree.

3. Hydrocephalus, ventricular or meningeal, may develop in utero or at any time throughout infant or adult life.

4. The number of cases of spontaneous recovery in either are probably numerous, especially in infant life, where the arachnoid alone is involved.

5. All cavities may unite with or without external rupture; when so, it is usually fatal.

6. Spontaneous rupture may occur externally or subcutaneously, with an occasional recovery.

7. The effusion may be into the lateral, third or fifth ventricle, or it may be in the arachnoid, one or all.

8. A clot in the arachnoid cavity may cause a cyst which will enlarge with all its consequences.

9. Syphilis and rickets have been assigned as causes for hydrocephalus, but such have never been proven; the cause is as yet unknown.

10. Sometimes zones of new caseous material are seen scattered here and there in the meninges, and sometimes upon or in the brain substance.

11. The septum lucidum is invariably thickened, as are the cerebral meninges in general.

12. It is probably the greater number of cases of hydrocephalus, whether of the third or fifth ventricle or the arachnoid variety, that can be cured by some form of drainage.

13. Continuous drainage by seton or the repeated use of trochar has given the better results in the way of benefit or cure.

14. Spinal drainage has been practiced to a limited degree, and as yet with undetermined results.

15. Subcutaneous drainage has not as yet resulted in a cure, but there seems to be many possibilities for this method.

16. Trephining for drainage is only resorted to in cases where the fontanelles have been closed by bony union.

17. Results from drainage are more favorable if it is done when the presence of the fluid is first detected.

18. It is sometimes necessary to drain both hemispheres, together with the right and left cerebellar cavity.

19. The secret of curing arachnoid hydrocephalus by drainage probably lies in obliterating the arachnoid cavity. However, this can hardly be so with hydrocephalus of the third, fourth and fifth ventricular variety.

20. The cardinal principle in this, as in all operations upon the brain, is asepsis.—*The Virginia Medical Semi-Monthly*, February 26, 1904.

William F. Baker, A.M., M.D.

THE NERVOUS COMPLICATIONS AND SEQUELÆ OF SMALLPOX.—(Aldrich.)—Smallpox, like all other infectious diseases, gives rise to complications and sequelæ; especially is this so in relation to the nervous-system. The first effect of the infection is made known by severe frontal headache. These complications invade all portions of the nervous-system. Convulsions usually precede the attack in children. Four types of psychosis are recognized: (a) initial delirium, (b) febrile delirium, (c) exhaustion delirium, (d) true post-variolous insanity. The occurrence of initial delirium is quite common, usually approaching on evening of the second day. Grave changes in the initial state have been observed to follow variola by Welch, etc. The occurrence of a true dementia paralytica has been known. Meningitis is a rare complication; it is usually purulent and metastatic from the skin lesions.

Paralyses may occur at the very onset of the disease; their tendency is to recovery.

Areas of simple softening and blood extravasations may occur in the brain and produce aphasia, monoplegia or hemiplegia.

The spinal complications are usually paraplegia, of the motor type, developing in any stage of the disease. Ataxias, myelitis, poliomyelitis anterior have all been observed.

The writer goes on further to say: "A careful examination of the literature convinces me that we have occurring as a complication, or sequel of smallpox, a disseminated encephalomyelitis, which possesses clinical features and pathological changes clearly entitling to be recognized as a clinical entity, and occurs with sufficient frequency to demand our consideration and study. Fifteen cases have been found in literature, all presenting:

"1. More or less ataxia in the four extremities, usually most marked in the legs.

"2. Slowness and awkwardness of movements.

"3. Slow, monotonous, explosive manner of speaking.

"4. Faulty articulation.

"5. A varying degree of mental degradation.

"6. A decided tendency towards recovery."—*The American Journal of the Medical Sciences*, February, 1904.

William F. Baker, A.M., M.D.

THE DIET OF ARTERIO-SCLEROSIS.—(Coley.)—Arterio-sclerosis is a condition usually resulting from overexertion or in overfed individuals, and in highly nervous, ill-nourished individuals. The dietetic treatment is of importance as bringing about a proper condition of metabolism in the patient. The restrictions in diet are: The quantity of food should be reduced, not more than one-half or two-thirds of the general average for the body weight being required. The quality is important. The proteids are to be reduced, not excluded. Meat taken once daily and only in small quantities. The food should be well cooked and large amounts of fat avoided, as well as all other indigestible foods. Alcohol, tea, tobacco and coffee should be used in extreme moderation. The ingestion of a large quantity of fluid should be avoided. The breakfast should consist of fruit, cereal with cream, and a soft-

boiled or poached egg. Dinner should be five or six hours later, and should be the heaviest meal and consist of soup, fresh meat and vegetables, but overfeeding should be avoided, and between dinner and supper another five or six hour interval should elapse. The evening meal should be light and consist of fruit and cereals. In large part the diet should be dry. Elimination must be kept to the maximum.—*The Medical News*, February 13, 1904.

William F. Baker, A.M., M.D.

PERSPIRATION.—Hoelscher reports experiments on human perspiration under the influence of drugs and in certain pathological conditions. After a thorough cleansing he enveloped his patients in a sterile gauze, and over this secured an oil cloth. The subject was then subjected to dry heat, not over 120° F., for one or two hours. When point of tolerance had been reached, the soaked gauze was quickly removed and subjected to pressure, the sweat collected ranging in amounts from 3 to 32 ounces. He offers the following conclusions from his experiments.

1. The hot air causes an aseptic fever or thermic fever, despite the antipyretic action of certain drugs. He could not understand why the antipyretics could not reduce the fever.

Acetanilid has no effect on the normal temperature in healthy persons and acts only in fever. It generally lessens the pulse-rate, decreases heat production and sometimes increases arterial tension.

2. The hot-air bath is of decided value in acute and chronic uræmia, shown by the fact that the perspiration contains a considerable excess of urea and nitrogen. He does not recommend it to the exclusion of all other remedies, but only as an adjuvant. The secondary effect on nutrition should not be forgotten.

3. In articular rheumatism the hot air seems to give beneficial results.

4. Certain types of myocarditis seem to be benefited also (a case is reported).

5. Pilocarpin should never be used without the aid of hot applications to the body. So applied, there is far more sweating than otherwise.

6. Three cases of catarrhal jaundice were sweated; all tests failed to show bile pigments, only the epithelial *debris* showing bile pigments.

7. Modern sugar tests failed to reveal the presence of sugar in the sweat of diabetics.

8. A case of chronic constipation and indicanuria did not disclose the presence of indol and skatol in the sweat.

9. As regards the function of eliminating normal and abnormal substances, the skin is not to be compared with the kidney.

10. Free sweating seems to favorably affect psoriasis, though further study is required as to its further effect in skin diseases.

11. Lastly, 1000 c.c. of sweat contains about 11.5 gms. solids (nearly 3 drachms), one-half inorganic and one-half organic, and about .6 gms. (9 grs.) of urea and .47 gms. (8 grs.) of nitrogen.—*New York Medical Journal*, February 13, 1904.

William F. Baker, A.M., M.D.

THE WIRING OF BONE FOR RECENT AND UNUNITED FRACTURE.—McCurdy, Pittsburgh, reports a number of cases of fracture treated by wiring the bones. Instead of the time-honored silver wire, the author prefers iron wire, using what is called "broom wire" No. 20 or 22. In no case has this material caused the slightest irritation in the tissues, remaining as bright as when first

introduced. He used it in fourteen cases of fracture of the mandible, and in no instance did the wire cause the least particle of trouble. The author lays great stress on the importance of disturbing the fractured surfaces as little as possible during wiring operations, claiming that undue stripping of the periosteum from the ends of the bones in efforts to saw, drill, or insert wire often results in non-union, or even necrosis. He prefers to wire the bone while the ends remain down in their normal position, thus preserving the nutrition, preventing necrosis, and guaranteeing union. A chisel especially constructed for this work is presented. It is made quite heavy so that it can be used without a mallet, and the cutting edge is rounded, avoiding damage to the soft parts beyond the bone. Another feature of the paper is the method of anchoring of bone fragments to external bridgework to hold them in position during repair.—*New York and Philadelphia Medical Journals*, April 9, 1904.

Gustave A. Van Lennepe, M.D.

THE VALUE OF A FECAL FISTULA IN THE TREATMENT OF TYPHOID PERFORATION.—Bartlett, St. Louis, reviews the literature of the surgical treatment of typhoid perforation, and reports one case successfully operated upon by the formation of a fecal fistula. The patient was a strong active man of 35 years in the fourth week of a rather mild attack of typhoid. The symptoms denoting perforation were a sudden, most excruciating pain in the right lower abdomen, followed by a temperature of 97° and a pulse of 135. Later the temperature rose to 104.4°, pulse 104, and respiration 30 and entirely costal. The abdomen was rigid like a board, and very tender to the touch on the right side. There was severe pain and hiccoughing, and no bowel movements.

Twenty hours after the onset of the attack, the abdomen was opened in the right semilunar line, and a general sero-purulent peritonitis found. The perforation was three inches from the ileocæcal valve, and about the size of an ordinary lead pencil. A stitch was inserted through all the coats of the bowel on either side of the opening, and made to include the parietal peritoneum and fascia, so that the gut was firmly attached to the edges of the wound in the abdominal wall, with the perforation so located that the feces could find a free outlet upon the surface. The general peritoneal cavity was "walled off" with gauze-packs, and the pelvis drained with a rubber tube. The entire procedure required but thirteen minutes for its performance. Chloroform was the anæsthetic. The patient recovered, but the fistula was three months in closing.

The author believes this to be the method that will give the greatest number of recoveries in the treatment of typhoid perforations, because it is simple in technique, can be very quickly done, and gives free exit to the intestinal contents. He gives the credit of the procedure to Theodor Escher of Triest, who first used it in four cases, with three recoveries.—*International Journal of Surgery*, April, 1904.

Gustave A. Van Lennepe, M.D.

A NEW METHOD OF INTESTINAL ANASTOMOSIS.—Sato, of Tokio, at a meeting of the Society of the Vienna physicians described a new method of anastomosis of the gastro-intestinal tract without opening into the lumen of the gut. The procedure is based upon experiments on twenty-two dogs and four monkeys. The technique is very simple. It is sufficient to incise the serous and muscular layers of the intestine opposite the mesenteric attachment for a length

of 3 or 4 centimetres and then dissect off on both sides. The exposed mucous membrane is then cauterized with nitrate of silver at a distance of 1 or 2 millimetres from the margins of the wound, any excess being removed with gauze. After both portions of the intestine have been treated in this manner they are to be anastomosed and a sero-muscular suture similar to the Czerney is then made. An adequate communication always took place. The nitrate of silver is preferred to the thermo-cautery.—*International Journal of Surgery*, April, 1904.

Gustave A. Van Lennep, M.D.

PRIMARY CARCINOMA OF THE BULBOUS URETHRA.—Hall, Bradford, England, reports this rather rare and interesting case: The patient, aged 49 years, was admitted into the Bradford Royal Infirmary suffering from a perineal abscess of ten days' duration, which was incised and drained. There was no history of venereal disease. Seven months later the sinus still persisted, likewise an ulcer and a solid ovoid mass extending deeply into the perinæum and surrounding the urethra. This mass was freely excised, together with the anterior layer of the triangular ligament. The urine was passed entirely through the resulting perineal fistula. Microscopic examination showed the growth to be a typical squamous epithelioma. Three months after this second operation a recurrence appeared, which grew rapidly, and the patient died nine months after the operation from exhaustion. The inguinal glands became enlarged during the last three months.

The author reports one other similar case occurring in the practice of Dr. Wood, and in addition has collected from the literature twenty-one cases corroborated by microscopical examination.—*Annals of Surgery*, March, 1904.

Gustave A. Van Lennep, M.D.

EYE CHANGES IN RELATION TO RENAL DISEASES.—Albuminuric retinitis commonly occurs in chronic interstitial and parenchymatous nephritis. A few cases are on record where it is associated with lardaceous disease, and with nephritis due to inflammation of the bladder, ureter, or pelvis of the kidney; additional cases in connection with any of these cases are worthy of careful record. Of twenty-two cases of pregnancy retinitis, 41 per cent. are known to have lived two years or more after the retinitis; of forty-one cases of renal retinitis, not due to pregnancy, only 22 per cent. lived for more than two years. The majority of cases of pregnancy retinitis do not occur until after the first pregnancy; when it occurs in a primipara there may be no recurrence of renal or eye symptoms in subsequent pregnancies.

My cases seem to show that the prospect of life is better when renal retinitis (not from pregnancy) occurs after age of 55. An early stage of granular kidney may be fairly suspected whenever the ophthalmoscope shows decided hyaline thickening of the retinal arteries; this suspicion will be much strengthened if the patient be comparatively young. This thickening may be conspicuous in one eye and absent or insignificant in the other; even the arteries in the affected eye are by no means always equally changed in all parts of their course. The thickening of retinal arteries, specially described by Gunn and others, should be considered a sign of danger of cerebral hæmorrhage in elderly people. It is immaterial to draw a sharp distinction between "exudative, inflammatory and degenerative" cases of retinitis, or to associate either form with any particular kind of chronic nephritis. I feel clear in my own mind

that there is only one sort of renal retinitis; the many varieties seen in life are only stages or degrees of œdema, exudation or degeneration. Glycosuria, as well as other constitutional or local conditions, may produce retinal changes similar in appearance to those of renal origin. I consider the life prospect better in diabetic than in renal cases. Most of the cases of choroiditis described as renal are secondary, in my opinion, to retinitis. Edward Nettleship.—*British Medical Journal*.

William Spencer, M.D.

THE EARLY TREATMENT OF CONCOMITANT CONVERGENT SQUINT.—Treatment of squint may be divided into (1) optical, (2) educational, (3) operative.

Operations are unscientific, as we can only touch the muscles, whereas the defect is in innervation, and the defect often tends to diminish towards the age of puberty without apparent reason. Hence, eyes that have been operated on early may diverge. Even if the eyes are made straight the operation itself tends frequently to produce deformities that are often by patient and surgeon ignored. Congenital amblyopia is rare, and even in those cases in which the retinal elements are lacking, or the optical centre undeveloped, the eye can be made intelligent by careful correction of the refraction at an early age, and compulsory use of the defective eye. The latter can be accomplished by covering the good eye and the use of a cyclopegia only in the fixing eye. Glasses should be worn constantly as soon as the child begins to use the eyes for definite vision.—*The Hom. Eye, Ear and Th. Journal*.

William Spencer, M.D.

THE PUPIL IN TABES.—A. Rochon-Duvignaud and J. Hertz have studied seventy-seven tabetic patients with observations of the pupillary reactions:

In 3 per cent. of the cases examined the Argyll-Robertson sign was incomplete; 30 per cent. of cases present bilateral, 13 per cent. unilateral, a complicated Argyll-Robertson sign, viz., diminution or abolition of contraction upon convergence; myosis is regularly present when the Argyll-Robertson sign is pure; optic atrophy rarely accompanies myosis; ophthalmoplegia externa or interna is even more rare; mydriasis is present only when light perception is lost, and contraction to convergence is frequently diminished or absent; when mydriasis accompanies a normal fundus, total ophthalmoplegia interna is usually present; mydriasis is most often present in those cases where the pupillary reaction to accommodation and convergence is lost, the power of accommodation being preserved.—*Med. Rev. of Rev.*

William Spencer, M.D.

RETINAL EXTRACT FOR ATROPHIC RETINÆ.—The writer thinks the retina contains some active physiological principle, as does the thyroid gland; is emphatic that the retina must be fresh.

The dose by mouth he uses is equivalent to six to ten retinæ a day. It seems to bring out any potentiality that may remain in the atrophied retina, even when ordinary light fails to excite function. He has obtained real, distinct improvement in five cases of retinitis pigmentosa.

Four cases of tobacco amblyopia were more improved in three weeks than is usual with other treatment. He also reported two cases of optic nerve atrophy improved. Excellent results have also been obtained in cases of old choroiditis, and in damaged and thin retina of high myopia.

In 1897 Louis Dor employed an extract of the ciliary body; in 1898 Lagrange

used an extract of vitreous and ciliary body combined. Choroid, retina, vitreous and ciliary body have also been extracted together and used; but never the retina alone, like this.

Dr. Darier (Paris) reported having used sub-conjunctively an extract of ciliary body, choroid and retina, with encouraging results in the apparent stimulation of the visual purple.

Sidney Stephenson reported treating three cases of tobacco amblyopia with Mr. Doyne's "opticine," getting marked improvement despite continued use of tobacco. Robert W. Doyne.—*British Medical Journal*.

William Spencer, M.D.

CRITICAL STUDY CONCERNING THE USE OF THE INTRAUTERINE BALLOON AND OF METAL DILATORS IN OBSTETRICS.—Hartz has contributed a most interesting article whose scope is accurately indicated in the title. As far as he knows, it was Karl Braun who introduced the use of the balloon into obstetric practice in 1851, and reported seventeen cases treated with it. He also proposed the name kolpeurynter, and suggested indications for its application. The use of a pig's bladder is said to have been known before that time. The history of the development and use of the instrument is then given, including the Barnes' bag in 1862. Maurer, in 1887, introduced traction upon the bag for the purpose of dilatation. In the following year Champetier de Ribes proposed his inelastic balloon, likewise to be used with traction. Since the latter instrument was too expensive and lacked durability, several similar bags were constructed by others, among them Voorhees in New York.

Many years ago Krause proposed the introduction of the bougie for the purpose of inducing premature labor. The newer instrument, the rubber bag, therefore came into competition and had to establish its place in obstetric practice and has accomplished the same, since it has been used in over 700 reported cases.

The main action of the rubber bag is the induction and strengthening of the expulsive action of the uterus, and the mechanical dilatation of the cervix. No other means so closely imitates the natural physiological processes of dilatation of the uterus as does the balloon. It excites contractions like the normal presenting part by irritation to the cervical ganglia, and if a more rapid effect be desired traction may be made. A third action may be obtained from the rubber bag, namely, as a tampon, as, for instance, in placenta prævia.

The metreurynter should not be used prior to the third month, because of the small dimensions of the uterus, and because the uterine walls are soft and easily injured at that time. From the fourth month onward it may be used with advantage, the smaller sizes being selected. The instrument is especially useful for the induction of premature labor in contracted pelvis. Here it stands in competition with the bougie, but has several advantages over the latter in that its action is more certain, more rapid and less dangerous; besides its action is to aid dilatation, so that on the removal of the bag the labor may be terminated forthwith. Fewer less frequently follows its use than after the bougie. Thus Zimmermann, in twenty-three cases treated with the bougie, found that the average duration of labor was eighty hours, and the morbidity in the puerperium amounted to 26 per cent. In ninety cases treated with the metreurynter, the average duration of labor was only seventeen hours, and the morbidity but 11 per cent. Other statistics are given showing approxi-

mately the same results. In Bonn the bougie precedes the introduction of the metreurynter. Fritsch, however, still believes the use of the bougie to be the best. Kleinhaus, in Prague, says that the bougie accomplishes only in days what the metreurynter effects in as many hours.

Those opposed to the metreurynter often repeat the objection that the rubber bag is difficult to introduce and hard to disinfect. Practical experience, however, shows the contrary, as the very general report of those frequently using the instrument indicates. It also appears that fever less frequently follows its use than after the use of the bougie. The metreurynter also gives better results for the children, as appears from statistics. Only one obstetrician, Ahlfeld, has had a different experience, which he thinks is due to the rubber bag causing transverse and irregular positions. In his cases, however, there was excessive contraction of the pelvis. The best results are obtained by version and delivery after the bag is removed.

Of pathological conditions during labor, in which the metreurynter is also indicated, may be mentioned premature rupture of the membranes with discharge of the waters; primary and secondary weakness of the expulsive forces; rigid and cicatricial os; faulty positions; prolapse of the cord; fever; prostration requiring the labor to be hastened. Statistics are given confirming these indications. Among the pathological conditions especially calling for the metreurynter is eclampsia. The conditions in eclampsia are yet mysterious, and what we know of it is after all but probable hypothesis; the fact is, however, that in from 60 to 80 per cent. of cases the convulsions cease with the delivery; hence the labor is to be terminated as rapidly as possible. But the rule should ever be to act conservatively and not to do harm. Here the metreurynter is indicated, provided a more rapid delivery is not called for by the condition of the patient.

In placenta prævia the results are especially good. The hæmorrhage may be overcome and the child's chances for life increased. Kustner believes hystereruyse to be the best treatment which can be used. The author concludes from the foregoing that the introduction of the metreurynter is one of the greatest advances in modern obstetrics. The article is to be concluded in a later number.—*Monatsschrift f. Geb. u. Gyn.*, xix., H. 1.

Theodore J. Gramm, M.D.

MICROBIAL CYSTITIS IN WOMEN.—Harrison, New York, reviews an article by Barlow, who established the fact that the micro-organism most frequently found in the urine of women having cystitis is the bacillus coli communis, though besides this he found the non-pyogenic staphylococcus ureæ and the pyogenic staphylococcus albus. It was also shown that even in the absence of trauma, urinary retention and ammoniacal fermentation, the bacillus coli communis could produce a cystitis when injected into the bladder. If the urethra be ligated so that urinary stasis is produced, the non-pyogenic germs generate a simple catarrhal cystitis: the pyogenic, on the contrary, produce first a simple cystitis which quickly becomes purulent. These results have been corroborated by clinical experience. In the puerperium the worse form of cystitis has followed the introduction of an unclean catheter. As to how the micro-organisms enter the bladder, it is certain that the most frequent means is the use of the catheter. The mock modesty of former days which suggested the introduction of the catheter by the sense of touch alone is now

happily abolished. The discharge occasioned by a badly fitting pessary and in carcinoma, mycotic cystitis is often observed. Cystitis may, however, arise from other sources than along the urethra, as from a parametric abscess opening into the bladder, and this occurrence is less rare than is generally supposed. It is also possible to have a descending infection causing cystitis during the course of infectious diseases. The views of authors are not uniform respecting the presence of fever. Some believe that fever is not present as long as the inflammation is confined to the bladder. Fritsch has repeatedly seen cases of puerperal cystitis, without other demonstrable involvements, in which the fever reached 104° Fahr., and promptly disappeared after local treatment. Attention is called to the necessity for using a clean catheter, and cleansing the vulva and urethral orifice before its introduction, and this practice should be rigidly enforced among nurses. As for the treatment benzoate of sodium and salol are recommended. When there is ammoniacal decomposition of the urine, urotropin and similar preparations are invaluable. In most cases of mycotic cystitis, the only treatment which leads to complete cure is local. The remedies at our command which most deserve confidence are three: boric acid; nitrate of silver 1:2000, and after some tolerance is established 1:1000; and iodo 2:1000. In necrotic and exfoliative forms of cystitis it is very important to be very cautious in the use of toxic disinfectants for irrigation.—*American Journal of Obstetrics*, January, 1904.

Theodore J. Gramm, M.D.

TUBERCULOSIS OF THE URINARY SYSTEM IN WOMEN.—Hunner, Baltimore, reports thirty-five cases. In about half the number there was a family history of tuberculosis. The average time of the existence of symptoms was four and a half years. While the symptoms first noted were in the bladder in about half the cases, a close scrutiny of the histories and comparison with clinic and pathologic findings convince the author that in by far the great majority of cases, urinary tuberculosis in women originates in the kidney. He has seen but two cases of undoubted tuberculosis of the bladder in which other portions of the urinary system were intact. The physical condition of the patients varies from apparent good health to an extreme condition of health suggesting but few chances for recovery. While the use of the cystoscope is of the greatest help, inability to use the instrument does not excuse the physician from making the diagnosis. A careful history alone generally points strongly to the true condition. Pain in the back, side or inguinal region, together with a disturbance of the bladder function, leads one to suspect some kidney disease. The kidney is usually palpable and tender. Palpation over the course of the ureter as it crosses the brim of the pelvis elicits tenderness and a desire to void urine, and the thickened ureter is often felt in this region. Per vaginam the thickened ureter can nearly always be felt beginning at the vesical junction just anterior to the cervix, and coursing outward and backward to disappear beneath the uterine vessels. He places great reliance upon the urinary examination, and holds that tubercle bacilli should be found in practically every case of kidney tuberculosis. Do not stain and examine twenty of thirty slides in one day. Examine one or two slides each day, and in the course of a week there is likely to be a shower of bacilli from some freshly broken-down focus of disease in the kidney. It must not be forgotten that the urine may at times be perfectly clear, particularly when the

patient is most ill with pain, chills and fever, or, in other words, when the ureter of the diseased side is blocked. The advantages of cystoscopy are indicated, but the author warns against unnecessarily catheterizing the sound ureter on account of the danger of carrying infection.

The treatment is mainly surgical, and the operative treatment of the cases is outlined. He was skeptical about the topical treatment of bladder tuberculosis, and has yet to see a case recover without operation. Caspar, however, reports the cure of two cases and the improvement of fourteen out of twenty cases treated by the use of small bi-weekly instillations of mercuric bichloride, 1 to 10,000 to 1 to 1000, and he states that this is the only medicinal treatment Caspar has found at all useful. Hunner has now had enough experience with this method to encourage the belief that it may be helpful in some of these cases.

In the summary of the article, Hunner further emphasizes that urinary tuberculosis in women is a disease of early adult life; that the disease should be kept in mind in dealing with any symptoms referable to the urinary tract; even such common occurrences as supposed movable kidney or incontinence of urine should be carefully investigated; any obscure or atypical case of supposed malaria or typhoid fever should remind one of this disease.—*Johns Hopkins Hospital Bulletin*, January, 1904.

Theodore J. Gramm, M.D.

THE PALLIATIVE TREATMENT OF CANCER OF THE CERVIX.—Chase, New York, has reported five cases which exemplify the beneficial results from treatment with the thermo-cautery. When hysterectomy is not indicated, the first requirement in palliative treatment is to remove the diseased structure as far as possible, for which purpose he believes that no palliative measure is at once so easy and effective as that of the thermo-cautery. The late Dr. John Byrne, of Brooklyn, developed this method to the highest degree of efficiency, and it was largely to his skill and persistency that the efficacy of this treatment was established. The value of cauterization depends upon the fact that the heat of the cautery extends beyond the area of tissue destruction, and thereby destroys the specific cancer cell. The procedure is usually bloodless. Special skill is required in not going beyond the area of involvement, and the avoidance of the bladder, rectum, ureters and intestines; and it is also essential to have the cautery knife hot enough to burn the structures and not hot enough to disintegrate them too rapidly; for if this be done, troublesome hæmorrhage may follow. The action of the cautery also effectually closes the absorbent vessels, thereby diminishing and arresting the infective process. The author has seen patients far advanced with cancer of the cervix, and showing signs of grave systemic infection, lose their cachectic appearance after thermo-cautery operations. The objection and dangers from powerful chemical caustics arise from the pain they produce, the difficulty of preventing the area of destructive energy involving normal structures, and doing violence to the bladder, rectum and other organs, which is irremedial. After the use of the thermo-cautery it is quite exceptional for the patient to suffer pain, providing that the muco-cutaneous surfaces are not burned. If there are large areas of ulceration and the tissues are friable, the curette may first be used with advantage. The resulting active hæmorrhage may be controlled with dilute acetic acid or adrenalin chloride. The cautery

knife should be at a dull-red heat. Five per cent. iodoform gauze is then applied and changed daily. When healing is imperfect, carbolic acid or silver nitrate may be called for. In some instances the cauterization must be repeated at intervals of some months. In several of the cases reported, recurrence had not taken place after two or three years.—*Amer. Jr. Obs.*, January, 1904.

Theodore J. Gramm, M.D.

THE YEAST TREATMENT OF GONORRHOEA IN WOMEN.—Abraham has just published some bacteriological experiments concerning this subject. He calls attention to a recent article where this treatment carried out in Bröse's clinic, by using injections of brewer's yeast and also cervical yeast bougies, was not only followed by no noteworthy curative results, but, on the contrary, had induced acute inflammation of the adnexa in seven cases out of nine treated with the intracervical bougies.

These results are in striking contrast with all former reports of the yeast treatment. The opinion of Olshausen is fully confirmed that the above-mentioned failures were due to the cases having been in the acute stage, during which local treatment must not be applied. Every other intrauterine treatment would probably have been followed by the same result. During an acute inflammation of the cervix, in which the congested mucous membrane is affected by an enormous infiltration and proliferation of round cells containing gonococci, there exists much more danger of injuring the mucous membrane and spreading the infection by direct transportation, and through the lymph channels, than in a chronic catarrh. In the latter, the tough, cervical mucus, deficient in cells, is less likely to carry the virus, and the mucous membrane, containing less blood and being thickened by connective tissue, has become more resistant to injuries. It is unlikely that the yeast cells can cause an endometritis and an ascending inflammation, because an examination of the vaginal secretion, after the application of yeast, has shown that the yeast cells lose their activity in a very short time.

In order to be sure that too recently infected cases shall not be subjected to the intracervical treatment, it is advisable at first to confine the yeast treatment to the vagina, and only after there have been no results for fourteen days, to use the intracervical treatment; for the majority of cervical catarrhs have been cured by the vaginal treatment alone. In the vagina the treatment may be applied without danger during the acute stage, and the author believes it to be an excellent remedy for vulvitis and vaginitis, and a prophylactic for ascending gonorrhœa.

His bacteriological experiments show that yeast is able to overcome the four varieties of micro-organisms in a mixed culture; this result being obtained upon the gonococcus in six hours; proteus in sixteen hours; streptococcus in thirty-two hours; and upon the staphylococcus in forty hours. That this result did not consist in a simple overgrowth of yeast is shown by the fact that there was not a regularly advancing increase in the number of colonies. The author believes that the bactericidal action of yeast depends upon an enzyme. It appears that the bactericidal ferment of yeast after a certain time induces a reaction in the cocci, which is also probably an enzyme formation; both enzymes act upon the presenting poison; the stronger finally conquers after it itself has successfully overcome an inhibition.

Of all cocci, the gonococci were the earliest to be overcome. In spite of this we cannot conclude that yeast develops a specific action especially against gonococci. The less resisting gonococci are only more easily destroyed by the specific opponent of all cocci. Clinically, however, we may regard yeast as a specific against gonorrhœa. The results of bacteriological experiments can, of course, not be directly transferred to clinical conditions. There is, however, an agreement between bacteriological and clinical experiments in the action of yeast upon gonorrhœa. — *Centralbl. f. Gyn.*, 1904, No. 8.

Theodore J. Gram, M.D.

RUPTURE OF THE SYMPHYSIS DURING LABOR. — Bächer, Budapest, reports the case of a primipara, 21 years old, five feet two inches in height, with proportionate slight development of the body, having pelvic measurements of sp. 25 cm., cr. 27 cm., conj. 18.5 cm., and bearing a large child in the first occipital position, fixed in the pelvis. Mild labor pains began on March 21, 1898, and continued nine days without having dilated the os. There was no elevation of temperature. On the tenth day dilatation was effected, and in the evening symptoms of exhaustion setting in with cessation of the labor pains the author proceeded to instrumental delivery with narcosis. The forceps were easily applied to the head still lying in the first occipital position, but traction was fruitless and the occiput did not rotate to the front. Since, however, the head was situated almost at the pelvic outlet, traction was continued, when a cracking sound was heard and at once the head was delivered without difficulty, followed by the other fetal parts. The child weighed 5000 gms.; circumference of the head 37 cm. The well developed skull bones showed no impression or fracture. After the delivery an examination of the genitals disclosed a gaping transverse laceration in front of the meatus urinarius corresponding to the location of the symphysis and between the bladder and the mons veneris. The peritoneum was uninjured. At each extremity of the wound the fractured ends of the os pubis were found separated about 4 cm. while the patient was in the lithotomy position. The wound, scarcely bleeding, was washed and packed with iodoform gauze, after a firm broad bandage had been applied about the hips, which brought together the fractured ends of the symphysis. The patient had no pain, and her condition was good. No suture was applied to the slight laceration of the perinæum. A retention catheter was used for four days. The dressings were changed every second day, and removed entirely on the eighth day. Her recovery was afebrile, the highest temperature being 100.2° on the second day, and the pulse during the first week 80 to 100. Three weeks later the bones were still separated about 1 cm., and were slightly movable. There was no deposit of callus, but the union was effected by a mass of scar tissue of the thickness of a finger. When the patient left her bed on the twenty-fifth day her walk was somewhat unsteady, but otherwise she had no symptoms except such as follow long confinement in bed. In about three weeks more the patient had fully recovered. The further history of the case shows that four months subsequently she had a miscarriage at the sixth week; in three years she gave birth to a child whose delivery was brought on in the thirty-fourth week, and the following year she had a spontaneous delivery at term. — *Centralbl. f. Gyn.*, 1904, No. 7.

Theodore J. Gram, M.D.

A CASE OF EXTRAUTERINE PREGNANCY WITH LIVING CHILD.—Czyzewicz, in Lemberg, has reported a case of this character. The patient, a III-para, was admitted to the hospital in the eighth month of pregnancy, complaining only of backache and obstipation. Although having a generally contracted pelvis she had experienced no difficulties during her previous pregnancies and deliveries. Her history did not disclose the usual occurrences attending primary rupture. The usual physical signs of pregnancy presented, though no uterine contractions could be demonstrated. Above the symphysis was a pear-shaped projection, unaffected by the condition of the bladder. Internal examination revealed a small cervix lying high up, and situated above a projection of the posterior vaginal wall suggesting a constriction of the vagina. At the tenth month spurious labor pains set in. "It was a peculiar sight to demonstrate typical labor pains in a uterus which contained no ovum." No contractions occurred in the foetal sac. The patient complained that she had typical labor pains differing in no respect from the normal pains she had previously experienced in her former labors. Here was an attempt on the part of the uterus to expel a body which did not lie within its cavity. The child was delivered alive through the abdomen. At the operation some difficulties were encountered from adhesions of bowel and omentum covering the foetal sac, and making difficult the finding of a line for incision. After delivery of the child it was the intention of the operator to allow the placenta to remain and to tampon the sac, but on account of partial loosening of the placenta within the sac, in the region of the adhesions with the posterior wall of the uterus, a severe hæmorrhage took place. Therefore it became necessary to remove the placenta which was adherent in the *cul-de-sac* of Douglas and to the right. A profuse hæmorrhage now set in from the placental site and filled the sac. It being impossible to control the bleeding by tamponade or by compression, a clamp followed by a ligature was placed upon the broad ligament of one side, and this proving ineffectual the same procedure was repeated upon the other side also, after which the hæmorrhage ceased. The sac was then packed, and the operation completed. Profound anæmia and rapid pulse required repeated infusion, injections of camphorated oil, etc., in spite of which the patient died on the fourth day post-operationem. The complete autopsy showed among other conditions circumscribed peritonitis in the hypogastric region, pneumonia and universal anæmia.—*Centrallbl. f. Gyn.*, 1904, No. 4.

Theodore J. Gramm, M.D.

ESERIN IN THE TREATMENT OF POST-OPERATIVE INTESTINAL PARALYSIS.—Arndt, in reporting on this subject, says the remedy was suggested by its use in veterinary medicine, where it is regarded as a sovereign remedy for acute intestinal paralysis in horses and cattle. Olshausen, who first called the attention of gynæcologists to this dangerous complication, has accurately portrayed the clinical picture. Excesssive daily increasing meteorism, bilious vomiting, absence of flatus and stool, and frequent thready pulse, are the conditions under which the patient is frequently lost within a short time. That in these cases there is not present an acute microbial peritonitis, but an extraordinary and great collection of gas in all the intestines, has been shown by numerous autopsies. Olshausen is inclined to ascribe this severe and often irreparable paralysis of the bowels to prolonged operation, during which much

handling of the bowels is required. It has been shown experimentally that the meteorism is due to disturbances of circulation in the vessels of the intestinal walls and of the mesentery, though it has also been attributed to a lesion of the intestinal nerves and a reflex influence traveling along the course of the splanchnic nerve. It is not yet determined whether an intestinal paralysis with distention may occur from bacterial poisons without the evidences of peritonitis. The present therapeutic measures at our disposal are rather meagre, and consist in high enemata, with glycerin, salt or laxatives, lavage, and strychnia. Laxatives administered by the mouth are entirely inactive, since the stomach participates in the paralysis, and neither absorbs nor passes its contents onward by reason of impaired peristalsis. A remedy, therefore, which promises better results must be received with the greater enthusiasm. The author believes such a remedy to be presented in the extract of the calabar bean. He has used it during the last three years in Breslau and in Posen, and it has not failed, except in cases of genuine acute cases of bacterial peritonitis.

The physiological action of calabar bean consists in an excitation of the tonicity of the intestinal musculature, which shows itself in a spastic condition of the bowel, with increased peristalsis. While some regard its point of attack to be the ganglia of the intestinal wall or muscle, others assume its action to be induced through those of the spinal medulla. Its action in the cat has been found to consist in a tetanic contraction of the entire intestines. Clinically, no injurious effect upon the heart has been noted, and there was no change in the pulse-rate, though an increased arterial tension was observed; while experimentally a tonic action upon the heart was believed to have been found. The author has never observed disturbances of the general condition nor of the central nervous-system, neither evidences of intoxication like vertigo, tremor, dyspnoea, nausea, or stupor. Nor has he seen the severe sweating mentioned by Moszkowicz. The suggestion that pressure upon the diaphragm is a contraindication is not in accordance with his experience.

The author has used the remedy hypodermically in the form of the salicylate, in doses of 0.001 gm. He is not able to express a definite opinion of the maximum daily dose, since it has not been required to administer more than two doses of the above-mentioned quantity. In the cases where this dose failed, there existed severe, genuine microbial peritonitis, which rapidly caused death. He has observed that in some laparotomies, especially such as were operated in the Trendelenburg position, the stomach itself is more affected by the distention than are the intestines. In such cases he has found that after the use of eserine, in spite of free discharge of flatus from the intestines, the stomach seems to remain bloated. He is unable to say whether or not this phenomenon is due to a diminished action upon the smooth muscular fibres of the stomach. Repeated washing out of the stomach as an aid to the action of the medicine has, however, sufficed to stimulate the stomach and overcome the local meteorism.

The beneficial results attending the treatment above indicated are illustrated in five reported cases.—*Centralbl. f. Gyn.*, 1904, No. 9.

Theodore J. Gramm, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

ACIDUM NITRICUM IN MOUTH AND HOOF DISEASE.—Veterinarians, as well as those intelligent farmers who treat their cattle with homœopathic medicines, will be glad to read that nitric acid is considered by Dr. Fischer, of Berlin, a specific medicine in this troublesome disease. Three drops of the first or second dilution is to be administered four times daily, and the mouth washed out once a day with a weak solution of the remedy. The hoofs may also be washed daily with a stronger solution.—*Hom. Monatsblatter Recorder*.

ICHTHYOL IN THE TREATMENT OF TUBERCULOUS GLANDS.—Walker Overend, M.D., in a recent number of the *Lancet*, calls attention to the value of ichthyol in the treatment of tuberculous glands of childhood. There seems to have been some difficulty experienced in the administration of this remedy, owing to its unpleasant nauseous taste. Tablets seem to be preferable to pills. The dose administered was about 1 grain or 1½ grains.—*Med. Visitor*.

ERGOTIN IN GANGRENE.—From the *Indian Homœopathic Review* we glean a rather remarkable case of gangrene beginning in the right foot and extending upward until the entire leg, to within three inches of the knee-joint, was involved in the gangrenous process. Arsenicum did not control the disease, and it was thought that amputation alone could save life. The variety seems to have been the dry gangrene of the aged. Ergotin, 3x trituration, was prescribed. To the astonishment of the physicians the whole condition changed for the better, and ultimately a perfect cure resulted. This seems to have been a homœopathic cure, and the experience is worthy of record for future confirmations.

AN OBSERVATION IN THE ACUTE DISEASES OF CHILDREN.—V. L. Getman, in *Chironian*, says that he is convinced, after careful and extended study and observation, that the higher potencies not only control the acute diseases of children better than do the lower preparations of our remedies, but the former potencies prevent the complications and after effects. He thinks that in this way we may avoid the destructive after effects of some diseases, and that the disease is confined to that part which it first affects. He believes that the low potencies are apt to cause metastasis to surrounding organs by attacking the disease too violently. Of course, this opinion has often been expressed before, but we need many confirmations to establish a truth. If it

be true, we owe it to our patients that we do all that is possible to ward off complications in acute ailments. The complications of some of the acute diseases of childhood are really more serious than the original disease. This observer means by high potencies the 1000-200, and so on. He should pursue this matter further.

A METHOD OF STUDYING THE MATERIA MEDICA.—The best method of studying our materia medica has always been a vexed question and will always remain an unsolved problem, for the reason that every student prefers his own plan. Every one will agree, however, that the best way to *learn* the materia medica is to *study* it. This is so evident that it is often overlooked. Dr. O. Edward Janney, in *North American Journal*, writes entertainingly of a method which he has found useful. We may sketch it briefly as follows:

1. Ascertain the drugs relations. Does it belong to the mineral, animal or vegetable kingdoms? To what group or family? What are its appearances and qualities?

2. Study its pathogenesis as sketched in such a book as Allen's *Handbook*. Read and re-read its list of symptoms, until you get a general idea of its sphere of action.

3. Then go back to the records of the provers. See how many of the provers developed similar symptoms. Read the records as found in the *Cyclopedia of Drug Pathogenesis*. There is life and coherency in such records, and the readers attention will be held by them. Then mark in Allen's book each symptom as it comes to light in the provers' experience found in the *Cyclopedia*. Thus the characteristics of the drug become clear.

This plan will doubtless yield splendid results, because it is a systematic and exhaustive analysis of the pathogenetic effects of the drug, during which the student reasons and thinks, for himself, instead of merely committing to memory that which some other student has thought out.

STRYCHNIA PHOS. IN GASTRIC DISORDERS.—Dr. George Royal regards strychnia phos. as very useful in the stomach disorders of school teachers, business men and members of the various professions, who do not get their food at regular hours. This class of people are apt to eat hastily, and are not apt to be careful what they eat. As a result of such faulty habits and the worry and mental strain of the daily work, there is a continued action and reaction between the nerves and the organs of digestion. The patient becomes irritable, depressed, sleepless; he suffers from palpitations, his tongue is always coated, there is a dull headache and a bad taste every morning. After meals he may suffer from vomiting of sour fluids or partially digested foods. There is apt to be a craving for cold or acid food and drinks. Such patients do well if given strychnia phos. 3x or 6x, one grain before meals and at bedtime. The frequency with which we meet such cases makes this addition to the therapeutics of this valuable remedy useful to the general practitioner.—*Med. Counselor*.

"PINK-EYE" AND ITS TREATMENT.—Dr. Royal S. Copeland, in a clinical lecture upon this affection lately delivered, terms it the most contagious form of conjunctivitis. Dr. Copeland makes one statement during this discourse, with which every eye specialist will likely agree. He says that in his opinion every applicant for license to practice medicine should be asked to show evi-

dence of a perfect understanding of three questions. 1. The treatment of ophthalmia neonatorum. 2. The recognition of glaucoma. 3. The recognition and correct treatment of iritis. We believe that an exact knowledge of these conditions, by every practitioner of medicine, would surely result in a startling decrease in the statistics of blindness. The author does not think well of adrenalin in pink-eye. He advises five grain boric acid solution. If no involvement of the cornea occurs, he adds two grains of cocaine to the ounce of the boric acid solution just mentioned. Internally, ferrum phos. is the first remedy called for. Afterward he uses bell., euphrasia or merc. Rhus tox. will relieve, when there occurs a sudden gush of tears as the eyelid is opened. When the discharge is fully established, pulsatilla may be prescribed. In debilitated subjects, the conjunctivitis sometimes persists for a long time. Nux vomica, in the experience of the author, has covered such cases nicely.—*University Hom. Observer.*

BAPTISIA IN SPASMODIC STRICTURE OF THE ŒSOPHAGUS.—We have seldom met with cases of œsophagismus, and never with one of such aggravated type as the example about to be mentioned. A man aged 70, but hearty and well up to within six months previous, noticed that occasionally his food refused to go down. Gradually he grew worse, until practically every mouthful came back and was ejected before it reached the stomach. He consulted a number of medical men, but they did nothing for him. It appeared to us that he had stricture of the œsophagus. This theory was readily excluded by the free passage of different sized œsophageal bougies. Then he met with a serious accident, following which he was laid up with a strained and bruised hip. The diagnosis of œsophageal spasm seemed the only plausible one, so we began a series of prescriptions based upon this conclusion and the totality of the obtainable symptoms. Much disappointment followed. When about to give up further trial, the patient meanwhile growing thinner and feebler in spite of various attempts at nourishment, we happened to come upon an observation by Dr. John Arshagouni to the effect that several cases of this nature had been published in Hoyne's *Clinical Therapeutics*, and that Dr. F. Cartier, inspired by these, had confirmed the value of the remedy, baptisia, in a similar case. Dr. Hoyne had used the remedy in the 12th and 30th dilutions. We gave baptisia 3d, and the result approached the marvelous, because our patient was enabled to swallow food and drink within two days, and soon ate as usual. The significance of this result becomes apparent, when it is observed that he had been afflicted for six months and more, and that he seldom was able to get down more than a few mouthfuls at each meal, and those only with the greatest difficulty. The major portion of each meal was immediately rejected as swallowed, and before it reached the stomach.

PSORIASIS: THYROID TREATMENT.—Dr. Byrom Bramwell, in his incomparable *Clinical Studies* for April, reports strikingly good results from the administration of thyroid extract in intractable cases of psoriasis. Five grains are given three times a day, and sometimes tar ointment is added. In some cases the dose of the extract is increased, until its full effect (thyroidism) is produced. We have published the observations of Dr. Halbert and others regarding this remedy. These latter observers used the 3x trituration of the extract, and obtained even better results. While thyroid extract is

not a specific for psoriasis, it is certainly a most promising addition to our resources.

HEROIN SHOULD BE CAUTIOUSLY PRESCRIBED.—There seems to be a feeling among the medical profession that implicit confidence may be placed in whatever is printed upon the labels which adorn the containers of the numerous ready-made trade preparations. Thus, if the label says that each teaspoonful of the pleasant cordial contains one-twelfth grain of heroin, and further on that a teaspoonful may be safely administered every two or three hours, that such are facts and may be trusted. It is probable that some of these labels do not express, with exactness, the formulæ of the compounds within. At all events, heroin is one of the drugs which must be used with caution, for the reason that, occasionally, it has produced coma, suppression of urine and still more serious effects. And it has done this when prescribed in doses as small as one-twelfth grain. It should not be repeated too frequently. It is a drug that is more suitable for prescription in single, un-repeated doses, for emergencies. It is one of the most toxic of the morphine group.

INTESTINAL OBSTRUCTION.—Dr. Wallace McGeorge, in *N. A. Journal*, writes positively regarding the power of such remedies as nux, opium and thuja to cure intestinal obstructions when selected according to the indications afforded us by pathogenesis. The author does not take the stand that surgical skill is superfluous, but he relates several experiences that seem to show the undoubted efficacy of internal medicaments, and while he does not say that he is watchful and on the alert for those signs that should ever inform the medical man that his patient is approaching the danger line where internal medication is as nothing compared with the mechanical procedures of modern surgery, we know that he is. Our experiences must always differ, but we think it will always be safest to be on the watch, lest we forget that dynamic remedies cannot invariably replace mechanical measures in such ailments as intestinal obstruction and appendicitis. Discrimination is the thing that we should cultivate.

Nux vom. is mentioned first as the remedy for cases of obstruction resulting from orange seeds, prune pits, coins or indigestible food that has become impacted in the small intestines and are causing great pain. The pains recur every few minutes and are felt at the point of obstruction. There is much ineffectual urging to stool. If the patient should have been given pills, oils or salts, this remedy will be especially called for. In those cases, continues the author, "when the patient cannot get out of the bed upon the right side, but must crawl to the left side of the bed to get out on account of severe pain in the ileo-cæcal region," nux is the remedy. We presume that this is one way of expressing the nux peculiarity—must rise to turn in bed. *Nux vom.* was effective in the higher dilutions. Some further indications for nux might have been added to these, as they are rather more suggestive than specific.

Opium.—May be used, with success, when the bowels have become constipated, or obstructed, from inactivity of the intestines. From ileus, or from intestinal paresis. In those cases in which the most powerful purgatives have lost their power. The stools are hard, black balls. Or in cases of intussusception when there is an open anus, and a black slimy mucus or bloody discharge. In ileus, says the author, when there is stercoraceous vomiting, opium will often bring the case to a successful issue and obviate operation.

Thuja occidentalis has been found to be reliable in obstruction of the bile ducts, in obstruction of the bowels and in occlusion of the bowels. The author relies upon the symptom "uncovered portions of the body are bathed in sweat, while covered portions are dry and warm," and mentions that thuja has been the remedy that was helpful in a dozen cases of bowel obstruction or appendicitis, "as it is the proper thing to call it now." We must protest against such a statement. It is not proper to call appendicitis—bowel obstruction, nor *vice versa*. Dr. McGeorge mentions the fact that in true angina pectoris, no remedy has given him such quick relief as magnesia phos. While internal medicaments surely will help us to overcome intestinal obstruction and appendicitis, we should never be willing to rely upon them alone in cases presenting clear indications for mechanical or surgical interference.

LEDUM PALUSTRA IN ECCHYMOSES OF THE CONJUNCTIVA.—G. De Wayne Hallett, M.D., thinks that ledum pal. is more commonly called for in both traumatic and in spontaneous ecchymoses of the conjunctiva than any other remedy. It also often seems to correct the tendency to hæmorrhage in these cases. It is also of value in inflammation of the conjunctiva in which extravasations of blood predominate.—*Hom. E., E. and T. Journal*.

PAPILLOMATA OF THE LARYNX, THUJA OCCIDENTALIS.—The excellent paper of Dr. H. S. Weaver upon this subject, published in *Hom. E., E. and T. Journal*, contains a strong recommendation of thuja as a curative remedy in this affection. Dr. Weaver reports six or seven cases completely cured by the local use of tincture, together with the internal administration of thuja 30. In some cases, however, the author found that medicinal measures were of no avail, and that the only thing that could be offered the patient was surgical interference.

THE TREATMENT OF PNEUMONIA.—There may be noticed a very gradual change of opinion among those who have heretofore handicapped their pneumonia patients with antipyretics and cardiac depressants. The pendulum having swung so far in one direction as to justify papers upon such topics as, "Is pneumonia amenable to treatment," and "Are we able to do anything for our pneumonia patient," and so on, it is naturally time to start upon a different tack. How far we shall travel in the new direction, time will show.

A recent paper by Dr. H. L. Elsner, published in *Philadelphia Medical Journal*, and ably reviewed with comments by Dr. Sajous in his *Monthly Cyclopædia*, contains some new thoughts upon this subject which are worthy the thoughtful consideration of those who feel dissatisfied with their pneumonia statistics. Dr. Elsner warns us against the free use of nitroglycerin. It paralyzes the vasomotors, and under its influence the blood loses its power of conveying and absorbing oxygen. He considers all antipyretics, save cold, worthy of condemnation. *Veratrum viride* he describes as a dangerous drug. We learn these things through the sacrifice of lives, truly an awful thought to contemplate. Elsner thinks that we shall win success only through the use of such drugs as restore and sustain the heart strength and arterial tone. For this purpose, strychnine, digitalis and suprarenal extract or adrenalin are recommended. He uses frequent doses of diffusible stimulants. Every fifteen minutes, during a critical period of cardiac asthenia, he administers fif-

teen drops each of compound spirit of ether, aromatic spirit of ammonia, compound spirit of lavender and tincture of valerian. This is kept up day and night until the heart-action is better and the pulse of better quality. Every fourth hour the patient receives one-quarter grain of sparteine sulphate with four to six grains of caffeine. In addition to this method of stimulation, Tokay wine may be used in tablespoonful doses, administered when the dose of ethereal stimulant is due. Occasionally, it may become necessary to resort to the intravenous injection of saline solution or to high rectal injections of coffee and whiskey. The results of such a stimulating treatment are said to justify its recommendation. What a contrast to the homœopathic treatment of a case of pneumonia. One almost loses sight of the patient, through the cloud of therapeutic expedients flying to his rescue, and wonders whether he will ever be able to thread his way back to health through such a chaos of medicinal action and disease effects. But we must not judge until we have read the statistics.

THE PROPHYLAXIS AND TREATMENT OF CARDIAC DEBILITY IN ADVANCING MIDDLE-LIFE.—In *Monthly Homœopathic Review* for April may be found one of Dr. Herbert Nankivell's "Wednesday Lectures." A very interesting and instructive paper it makes. The author dwells entertainingly upon those slight changes of habit which may be noticed in everyone as he grows older, and which changes certainly have a cumulative effect upon the system as the years go on. Fat accumulates, muscular fibre deteriorates, the arterial tube stiffens, some excretory organ begins to suffer—probably the kidney—the circulating fluid becomes of a debased character, charged with the results of tissue change; and so the heart, at last, has thrown upon it more and more work. It matters very little where the "vicious circle" is entered upon; as time progresses tissue after tissue and organ after organ is gradually added to the list of its triumphs. And so we read every day of the unexpected breakdowns in the cardiac mechanism. Dr. Nankivell classes the changes leading up to a condition of cardiac inefficiency as follows:

1. Gouty heart, leading up to dilatation and angina.
2. Fat heart, leading in its turn to fatty degeneration of the muscular tissue.
3. The thin, under-nourished myocardium, leading up to dilatation from comparatively slight causes.
4. Disturbed innervation, and disturbed muscular action and function, leading to dilatation very frequently.

The prophylaxis which is to prevent the development of an angina, a syncope, or a complete breakdown, may be found under three heads: 1. Dietetic; 2. Medicinal; 3. Hygienic. The author thinks colchicum has a very strong claim on our notice in the treatment of the first class just mentioned. The gouty and inefficient myocardium, the quick, rapid pulse, the intermissions, the collapse, all indicate its sphere of usefulness. In severe cases, the second decimal is recommended; in more chronic attacks, the first decimal might be used. *Digitalis* is praised when there is rapid and irregular palpitation and heart distress, but without marked dilatation. Here the second or third decimal dilution may be used. When weakness, mere intermittence, and a general condition pointing to atony rather than irritability, the first decimal, or drop doses of tincture.

Three remedies are said to be extremely useful in cardiac pain of a chronic nature, occurring at the middle period of life and later : *Spigelia*, cactus and nitroglycerin. *Spigelia* for the pains of the weak, neuralgic and undernourished heart, with pressure and weight in the heart region and tension and palpitation. Cactus for the male sex. The special indications being pain and oppression, as if the heart were grasped. Intermittent, feeble heart action. Nitroglycerin for the heart pain which extends across the chest and down the left arm to the fingers, with dyspnoea, anxiety and fear of impending death. *Strophanthus* is mentioned—a tonic of great use in the weak heart, when dilatation is of a moderate character, when uneasiness rather than pain is present, or simply an aching pain as from fatigue. The pulse is occasionally intermittent, but the palpitation is not of a vigorous, paroxysmal character.

SPINAL IRRITATION.—In a remarkably clever analysis of the therapeutic effects of *actea racemosa*, by W. A. Dewey, M.D., published in *Chironian* for March, the author offers some comparisons with remedies useful in spinal irritations.

Cimicifuga seems best indicated when the upper and lower cervical vertebræ are so sensitive to pressure that the patient cannot lean back in his chair on that account. If reflex from uterine trouble, in a woman, the remedy is still more indicated. In multiple neuritis from alcohol, *actea* is our first remedy.

Natrum muriaticum also suits cases of spinal irritation with this sensitiveness between the vertebræ ; but the patient is better lying flat upon the back.

Physostigma is another good remedy. It has all kinds of burning and twinging sensations in the spine, numb hands, jerking of limbs, rigidity and tetanic spasms of the back.

Zincum metallicum is the remedy when spinal irritation goes on to partial paralysis. There is aching in the back about the last dorsal vertebræ ; worse from sitting. There is, especially, weakness of the legs.

Cocculus is useful for women who have weak spines and a paralytic aching in the small of the back ; they can hardly walk and there is an aching, gone feeling in the spine.

Nux vomica suits the aching in the back as it occurs from sexual excesses.

Kobalt likewise suits backache from sexual excess, but the pain is worse from sitting and there is weakness of the legs. It seems to fit in with zincum, nux and *actea*, with a symptom of each.

Thallium, the most poisonous metal known, causes neuralgic spasmodic pains. It has been prescribed, with success, in the horrible pains of syphilitic spinal sclerosis.

OIL OF SANDALWOOD.—In Clarke's *Dictionary of Materia Medica*, which, by the way, is as entertaining as a novel for odd moments of leisure, and far more instructive, it is related how an observer noted that when taking oil of sandalwood for gonorrhœa, his patient complained, after each dose, of a severe pain in the kidney region, compelling him to sit. Acting upon the hint, this observer gave the oil to an elderly man, who looked haggard and worn, and who complained of a pain in the region of the left kidney, from the ribs to the iliac crest. Walking aggravated the pain, and lying down

relieved it. Pressure by the clenched fist also helped. One drop of the oil every four hours gave great relief, and cured after two months' use. We suggest that there are a great many peculiar pains in the region of the kidney which are difficult to diagnose and as difficult to cure. Many of them suggest the case above mentioned. Berberis and bryonia and such remedies fail. Some of these cases are probably instances of kidney stone, others of dislocated kidney; still it is worth while to try oil of sandalwood, either in tincture or dilution, where other remedies fail to relieve and operative procedures are not thought wise. We have had some success and are still experimenting.

ABSENTMINDEDNESS.—Anacardium is a valuable remedy and has the symptoms in a pronounced degree. Nux vomica suits those who have been upon a debauch and who are morose, despondent and forgetful. Aurum metallicum suits the melancholics who are forgetful. One of our best remedies for absentminded people is ignatia amara. The ignatia subject is sad and thoughtful, apparently, yet is constantly forgetting and misplacing the most commonly used articles of wearing apparel. When spoken to, they look at the speaker with a far-away stare, or make some irrelevant reply. They appear as if deeply in thought.—H. T. Dodge, M.D., *Progress*.

ENLARGED GLANDS.—A most useful application for enlarged glands, according to Dr. H. M. Neale, is ung. plumbi. iodidi.

WHEN DIGITALIS DISAGREES.—That sometimes digitalis in tincture or "fat-free" fluid is necessary, in order that life may be saved, probably everyone will agree. But, it is likewise true that sometimes the remedy in these cruder preparations disagrees with the patient, producing nausea and very troublesome vomiting. It seems as if it was safe, under such circumstances, to prescribe one of the lower triturations of digitaline, before concluding that the remedy must be discontinued. We feel rather certain that digitaline, 3x trituration, is a reliable remedy in extreme dilatation, either acute or chronic, and under the same circumstances for which digitalis crude would seem indicated. This trituration is by no means a feeble drug. When assisted by judicious nursing and perfect rest, we feel rather sure that it will often assist in restoring the lost compensation, as well as or even better than several drop doses of the fluid digitalis. Feebleness and degeneration of the cardiac muscle is not a contraindication for digitaline 3x.

A NEW RESOURCE IN PERSISTENT VOMITING.—Dr. W. Essex Wynter, M.D., in *The American Physician*, after referring to the inappropriateness of the many remedies for vomiting which involve ingestion and digestion by an organ which can neither retain nor absorb, offers us a direct method of treatment which he has found to be uniformly effectual. The administration, by inhalation, of pure oxygen gas has been of great service in various forms of persistent vomiting—functional, reflex and organic. He mentions a notable example of its utility in the case of a nurse who was recently under treatment for a perforated gastric ulcer, involving laparotomy and suture of the stomach. Nothing could be given by the mouth, of course, and oxygen arrested the persistent vomiting following the anæsthetic, as well as a recurrence which happened some days after the operation. This observation seems to us to fill a very important niche in our armamentarium of good things.

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SOME PROPHYLACTIC REMEDIES.

BY WILLARD IDE PIERCE, M.D., NEW YORK.

(A lecture in the Practitioner's Course of the New York Homœopathic College.)

THE question concerning the power of certain remedies to act as prophylactics is one that has always interested me, the more so, perhaps, from the fact that while it is a highly theoretical one and not amenable to direct proof, it is, I believe, capable of demonstration.

While I am ready to acknowledge that we cannot deny the assertion that a given patient would have remained immune from a certain disease, even if no medicine had been taken with the idea of causing that condition, still if we meet with uniform success with the use of what we are pleased to call our prophylactic remedy, and with little or indifferent success without it, I consider that we are justified in believing that certain remedies do act as preventives in certain diseases, and that we should use them whether strict hygienic measures, including quarantine, can be carried out or not.

This is the place to talk about it. The under-graduate having had no experience with the subject is either indifferent to it, or at the best looks upon it as a poor second to the cure of disease. The practitioner, on the other hand, is constantly meeting with the question, and while aware of its importance has already formed an idea as to its value, be it favorable or otherwise, and it is especially to those of you who are either luke-

warm, or who question the power of remedies to act as prophylactics, that I wish to speak.

It is not my intention to consider all the remedies that have been found useful, but principally those that I have used, giving the results obtained by others, when possible, the success that I have met with and whatever failures I have had.

Bell. 30 for Scarlet Fever.—Scarlet fever, the most prevalent and fatal of the exanthematous maladies, is highly infectious, and merely coming for a moment into the presence of one affected with the disease suffices to reproduce it in a susceptible person.

Hahnemann was the first one to proclaim the prophylactic power of belladonna in scarlet fever, he originally using it on five small children in a family where the mother and eldest child were attacked with the disease.

Hahnemann was led to use it as a prophylactic by recalling that, as he says, "some weeks previously, three children of another family lay ill of a very bad scarlet fever; the eldest daughter alone, who, up to that period, had been taking belladonna internally for an external affection on the joints of her fingers, to my great astonishment did not catch the fever, although during the prevalence of other epidemics she had always been the first to take them."—*Lesser Writings*.

At the time that Hahnemann first published his pamphlet concerning the prophylactic power of belladonna, scarlet fever was very prevalent throughout Europe, and the remedy was extensively tried by many physicians, or, as Dunham says, "in thousands of cases and by hundreds of physicians."

"The testimony in its favor," continues Dunham, "was not unanimous, but greatly preponderating."

This testimony, at first, was not favorable to the drug, and the reasons against it may best be shown by quoting from Hahnemann, who says: "The prophylactic power of belladonna (given in the smallest dose every six or seven days) discovered by me, against the true erysipelatoid smooth scarlet fever, as described by Sydenham, Plencitz and others, was calumniated and ridiculed for nineteen years by a large number of medical men, who were not acquainted with this peculiar form of children's disease, and consequently mistook for it the *red miliary* (purpura miliaris, roodvonk) that came from Belgium in 1801.

"This they falsely called 'scarlet fever,' and naturally they failed to get any result from the administration of my prophylactic and curative remedy for true scarlet fever, in this red miliary fever.

"I am happy to say that of late years other medical men have again observed the old true scarlet fever.

"They have amply testified to the prophylactic power of belladonna in this disease, and have at last rendered me justice after having been treated so long with unmerited contempt."

—*Chronic Diseases.*

Dunham tells us that "Hufeland reported in favor of its prophylactic action. His report was based on observations of his own and the sum of the testimony of others. In consequence of his report the Prussian government, in 1838, decreed that it should be obligatory on physicians to give belladonna as a prophylactic whenever scarlatina prevailed as an epidemic."

This is the record that Hahnemann made for the drug, and it may be not without interest to learn what the medical world of the present day thinks of the value of belladonna as a prophylactic.

The old school do not use it, or, if they do, it is with but little confidence in the results to be obtained.

Loomis-Thompson (1897) says: "Thus far, there is no remedy known which has the power of destroying the susceptibility to the disease."

Bartholow (1878) says he "is convinced that the so-called prophylactic power of belladonna against scarlatina has no real existence. I have seen too many cases of scarlatina occur in subjects, who have been given the remedy freely, to permit me to come to any other conclusion."

Reynolds (1880) says: "The prophylactic virtue of an infinite number of fumigations and drugs has been vaunted from time to time, but fruitlessly, with one exception, namely, belladonna; yet even of that remedy the reputation, not wanting the support of hundreds of observations tabulated, has in the present day sunk very low."

Flint (1880) says: "It remains to notice the protective influence against scarlatina which has been imputed to belladonna. Satisfactory proof of its prophylactic power requires that the number of failures shall not be large; and, judged by this rule

of evidence, it is extremely doubtful if there be any ground for imputing to this remedy a prophylactic power.

"It is, however, to be considered that to prescribe belladonna as a prophylactic is always a harmless experiment, and is therefore objectionable only on the score of supererogation.

"Moreover, as the popular mind has been directed to this question, the wishes of friends are often better satisfied if the drug be prescribed. These considerations may properly influence the physician."

Amongst our own school there is a decided spirit of lukewarmness shown as to its value, most authors dismissing it by saying that while it undoubtedly acted as Hahnemann used it, still he gave it for the so-called Sydenham, or smooth form of scarlet fever; and as that is a type we seldom see to-day, it cannot be expected to act as a prophylactic against the form we find at present.

Many physicians, in conversation, will tell you that they do not believe in it, that they have tried it in all strengths, from the tincture to the 200th, and that they have had secondary cases about as often as though it had not been given.

As the potency to be used will be a feature as regards my belief in the value of belladonna as a prophylactic, and as it may explain why so many have questioned its protective power, a few words concerning the history of the potentizing of drugs may be in order.

It was in 1801 that Hahnemann first published his pamphlet concerning the prophylactic power of belladonna, and he told how he prepared the remedy, at that time, by taking 1 grain of the dried extract and rubbing it up with 100 drops of distilled water; to this solution he directs that 300 drops of diluted alcohol be added, and, after violent shaking, it is called "strong solution of belladonna."

One drop of this, shaken with 300 drops of diluted alcohol, is called "medium solution of belladonna."

One drop of the latter, shaken with 200 drops of diluted alcohol, is called "weak solution of belladonna."

This weak solution, he says, "is our prophylactic remedy for scarlet fever," and is to be given in 1-drop doses for a child under 1 year, up to 14- to 16-drop doses for a 9 year old child, every three days.

The size of the dose is increased for older people up to 40 drops, and the frequency of the dose is increased if the epidemic be very violent, "the second dose twenty-four hours after the first, the third dose thirty-six hours after the second, the fourth forty-eight hours after the third, and thereafter to let the subsequent doses be taken every seventy-two hours until the end, in order that the system may not at first be taken by surprise by the miasm."—*Lesser Writings*.

This weak solution, obtained by mixing 1 grain of the drug with 400 drops of water and alcohol, 1 drop of this with 300 drops of alcohol, and 1 drop of this with 200 drops of alcohol, a drop of this representing the $\frac{24}{1000000}$ part of a grain of the dry belladonna juice, is, as Hughes tells us, Hahnemann's first mention of "what are now known as infinitesimal doses."

Fifteen years later he adopted the centesimal scale, and it was not until 1822 that we find any mention made of belladonna 30, concerning which Hahnemann says: "Taught by a hundred-fold experience at the sick bed during the last eight or ten years, I could not help descending to the decillion-fold dilution '(30th),' and I find the smallest portion of a drop of this for a dose quite sufficient to fulfil every curative intention attainable with this medicine."—*Chronic Diseases*.

At this time he also states that belladonna for prophylactic purposes is to be "given in the smallest dose every six or seven days."

Dr. St. Clair Smith, our Emeritus Professor of Practice, sends me the following, in answer to my request that he tell us his experience concerning the use of belladonna as a prophylactic against scarlet fever.

"In the autumn of 1868 I went to the House of Industry at the Five Points as Assistant Interne in the Children's Hospital attached to that institution.

"Shortly after I entered upon my duties there, a case of scarlet fever occurred among the children of the institution.

"The child was taken sick during the night, in one of the dormitories, and had been with about one hundred and fifty other children for several hours before his condition was discovered.

"He was brought to the hospital the next morning, with a well-developed case of scarlet fever.

"I was young, very young, at that time, but even then believed what I had heard or read concerning homœopathy and its all-powerful control over all kinds and phases of disease when administered in the higher potencies and the single dose, and with the confidence born of inexperience and the ineffable admiration of the knowledge of Dunham, Wills, Morgan and Allen, all teachers of mine, I put the patient to bed by the side of the others in the hospital and immediately prepared the 30th of belladonna, a teaspoonful of which was given three times daily to every child, not only in the hospital, but throughout the institution.

"The results were as my teaching had led me to expect, and there were no secondary cases. It was not many months before this experience was repeated, and during the two years and over that I was Resident Physician there, more than twenty instances occurred in which I was enabled to test the prophylactic powers of belladonna, and each time successfully.

"Two outside cases I will relate as showing the working of the remedy under the most adverse circumstances:

"There was a family on Baxter Street, consisting of the parents and four children. They lived in a basement in the most abject squalor, the children sleeping in a pile of rags in one corner of the room, crawling into this mass of rags at night like pigs into straw.

"One of the children sickened with scarlet fever, and I went twice a day, morning and night, and gave the three others a dose of belladonna 30, a few pellets on their tongues. None of the three contracted the disease.

"In 1871, in Brooklyn, a very poor family lived in two rooms, and the children, four in all, slept in a wide bed in a jog in one room, something like a bunk on board ship. One of these children was taken with scarlet fever; the others were given belladonna 30; and notwithstanding that they slept in the same bed with the sick one, they all escaped the disease.

"With each succeeding case that took my remedy with the uniform good results, is it small wonder that I should have developed a confidence in the prophylactic power of belladonna in scarlet fever?

"I thoroughly believed, and I do now, that with that same potency, properly prepared, I could prevent the spread of scarlet fever in any family, under any circumstances.

"From November, 1868, until December, 1878, I never saw the second case of scarlet fever in any family under my care, and this means in over one hundred consecutive cases.

"I never quarantined the sick child, nor denied the other children admission to the sick room, and confidently assured the parents that there was no danger of the other children becoming infected, and during that ten years I was never disappointed.

"In December, 1878, while associated with Dr. T. F. Allen, I was called to one of his patients, and found one of the children in the family sick with scarlet fever.

"I told the parents not to keep the other child from the room, as I would give her something that would prevent her taking the disease.

"Returning to our office and finding my long used bottle of belladonna 30 empty, I sent to the nearest pharmacy for some more and gave this to the well child, who promptly took the disease and nearly died.

"I do not believe that I ever experienced greater astonishment in my life, and could not comprehend or understand why the remedy had failed to protect; but from that time on the spell was broken until about four years ago, when Mr. Carroll Dunham Smith called at my office, and I asked him if he had any of the original potencies prepared by his grandfather, Mr. John T. S. Smith.

"I remembered that my original supply was one of the elder Smith's preparations, and knowing of his accuracy in running up his remedies, wanted to give it another trial.

"I received this 30th of belladonna, and within a week had occasion to use it, and with precisely the same results as had attended my early trials, and this experience has been repeated ever since.

"The point that I wish to bring forward is this, that the 30th of belladonna prepared as Hahnemann directed, 1 drop of one potency, succussed with 99 drops of alcohol to make the next potency, will, each and every time, act as a prophylactic against scarlet fever."

It was my privilege, as a student, to hear Dr. Smith make a similar statement, and soon afterwards I made for my own use the 30th potency of belladonna, starting with the tincture, and

differing from Hahnemann's directions for making it only in the additional amount of succussion that each potency received.

I have used it as a prophylactic in every case that has presented itself, and while my opportunities have been much more limited, I have had success with it in every instance.

Apis 30 for Diphtheria.—Unfortunately, as regards the prophylactic value of *apis* against diphtheria, I have only my own experience with it to relate, but the results have been satisfactory in all but one case, and in that instance the patient, one of our students, acknowledged that he had not taken the remedy as directed, three times a day.

At the Laura Franklin Hospital some twenty children in a ward were exposed to a case of diphtheria for three days before it was discovered and the patient isolated. (In all the cases of diphtheria that I will speak of, the diagnosis was confirmed by bacteriological examination, and in this instance there was a fatal termination.) The other children and all the nurses who had been exposed were given *apis 30*, and no one contracted the disease who took the remedy.

Of two children, one a visitor in the ward for an hour, the other a patient there, who was removed as soon as his mother learned that there was diphtheria in the hospital, neither of whom took the prophylactic, one of these children, I do not know which one, contracted the disease.

Last summer a girl of 10 years lay sick with diphtheria for two days in the same bed with her mother and 4-day old sister, while five children played in that, or an adjoining, room. The case was then isolated, more or less, the others put on the prophylactic, with no secondary case.

A boy of 5 years was sick with diphtheria, and throughout his illness his mother and two children, one of 3, the other at the breast, were in and out of the room constantly. The well ones were put on the prophylactic and remained well.

Baryta carb. 30 for Quinsy.—Allen, in his *Handbook*, says that *ba. carb.* "seems to remove the predisposition to quinsy."

I am inclined to make this statement more emphatic and use the word will instead of "seems to."

Most of the cases treated have been lost track of. One young girl who came to the Ophthalmic Hospital had, on her first visit, what she called her ninth attack that year. After that

was over she was put on ba. carb. 30, and at the end of six months, when she last reported, she had not had another attack.

Two patients, only, I know the results of, up to the present time, who have taken the prophylactic against the recurrence of quinsy; one had had frequent, the other yearly, attacks. Five years have elapsed in the one case and two in the other, with no return.

With this remedy as with graph., which we will speak of next, to prevent recurrences, it is my custom, in default of knowledge of a better way, to give the patients after the attack is over four 1½-dram vials of No. 40 pellets, and direct that they take two pellets, morning and night, until the one vial is exhausted, and every three months afterwards take the contents of another vial in the same way.

This will carry them over one year, by which time I expect the predisposition to be removed.

Graphites 30 for Erysipelas.—Erysipelas is one of the diseases where instead of an attack conferring immunity, it rather predisposes to subsequent ones.

Lilienthal says that graph. is useful for the "chronic disposition of phlegmonous erysipelas to return," and Farrington says it "is said to prevent the return of erysipelas when that disease becomes constitutional."

It was not until a member of my own family had the third attack in as many years that I concluded to give graphites a trial.

Since then, while I have used it in a few cases, I know the results of only that one where there has been no recurrence in three years.

Cocculus 30 for Carsickness.—There have been so many opportunities for the use of coccul. as a prophylactic against carsickness, that I look upon it with the greatest confidence.

Not very long ago I received a letter from a gentleman in which he said that his wife had taken the remedy as directed, and for the first time in his married life, something over twenty years, she had not suffered from carsickness.

"As we went on the southern roads it was a pretty good test of your medicine, and I want you to send two bottles more by mail, as we are going to take a more extended trip than was contemplated when we left home."

Several times young people who were inclined to belittle the efficacy of the remedy have taken it with success on their outward journey, and have then thrown the bottle away, with the remark that "it was not due to the medicine, as I do not believe I would have been sick anyway, having evidently outgrown the tendency towards carsickness."

While I am only human, still I regret to say that when I learned of their usual carsickness on the return trip, I was neither depressed nor sorrowful.

In giving a remedy for carsickness, or for seasickness, I direct that it be taken hourly for three days before starting, and then hourly, or oftener, as the sensations call for it.

Apomorphia 3 or 6 for Seasickness.—In reply to my request, Dr. W. W. Blackman of Brooklyn sent me the following letter, dated October 3, 1903:

"I have used apomorphia for seasickness for nearly twenty years, and have had better success with it than any other remedy, though cocculus ranks a close second in my regard.

"I use the 3d or 6th trituration, and advise its being taken every three or four hours during the day previous to sailing. During the attack give every hour until relieved."

I have had no opportunity to make use of apomorphia since the receipt of this letter, but it is unnecessary to say that I will employ it as soon as the occasion presents itself.

Petroleum 6 for Seasickness.—Heretofore I have used petroleum as a prophylactic against seasickness.

While the symptomatology of the drug would lead one to look upon it as the remedy in most cases, still as I have met with some failures in its use I feel more or less doubtful as to its power. It may be that instead of the drug it is the potency that is at fault, and some day I expect to run it up to the 30th and then note the results.

Staphisagria 30 for Styes.—While I have not used staph. often enough to permit me to speak with positiveness concerning its use, still I prefer it to puls. which is often spoken of as a prophylactic.

Staph. will not only abort the trouble if taken at the first indication of its outset, but I feel will prevent the recurrence of other styes, and use it as a prophylactic with a good deal of confidence.

This completes the list of prophylactic remedies that I have to give you, with the results obtained from their use.

Where the remedy is to be taken during the time a member of the family is ill with the disease, much more accurate results can be obtained than when it is to be taken to prevent a recurrence, as it is easier to keep watch and know that it is being used as directed.

In the former case the dread of the disease is also ever present and the individual is more inclined to follow out the instructions as given; in the latter case, the trouble being over, the patient is apt to forget to take their remedy.

With one exception I have used the 30th for prophylaxis, and that one is where I have had my failures.

While it cannot be proved, I feel that the 30th is the best potency for all prophylactic remedies. It is probable that there is a slight range, above and below, in which they would act just as well, but as I do not know what it is, would suggest that they be tried in that potency and in no other.

As I have never been able to reason it out, with any degree of satisfaction to myself, how a high potency worked in any given case of sickness, I began, early in my medical life, to make my own 30th's in the endeavor to reach some conclusion as to their value.

They were made with all the care that I could give them, and when finished I was in a position to certify that if the tincture or 3d trit. that I started with was the tincture or 3d trit., then my bottle marked 30 contained that potency and no other.

I still use them to the exclusion of any that I could buy, but, with the exception of knowing that they work satisfactorily, I am unable to make any explanation that explains as to how and why.

If you have any doubt concerning their value, and for our purposes here we will limit it to their use as preventives as offering the severest test, try it for yourselves. Select some disease that has worried you and that you have been anxious to prevent its extension or recurrence; run up its prophylactic remedy to the 30th, and see if the success that you meet with is not a sufficient inducement to lead you to run up other remedies.

CHRONIC VALVULAR DISEASE OF THE HEART.

BY E. R. SNADER, M.D., PHILADELPHIA.

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As this patient, Mr. W. R., aged 58, a teamster by occupation, walks into the clinic, you all observe, I have no doubt, that he is short of breath. This shortness of breath I believe to be of cardiac origin, and, if not dependent upon the heart, a search for its cause will involve a thorough investigation of the lungs, the kidneys and the arterial system, and possibly still other systems, before we can come to an intelligent appreciation of the cause of this particularly manifest symptom. While all the organs of the man's body that are accessible to physical diagnosis, by either the direct methods or by the use of the microscope in the examination of the secretions and excretions, may have to be employed before we arrive at a satisfactory solution of the origin of this symptom of dyspnoea on exertion, it seems most logical and wise, as well as time-saving, to at first investigate the organ that is clinically found most frequently to be directly responsible for this particular manifestation in the respiratory sphere. However, even should we discover that this man's heart is the seat of disease, it may still be necessary to examine other organs; for dyspnoea, although it have a competent cause in the heart itself, may have several factors at work in its production.

I shall not go into the history of the case at this time. I want each member of the class to examine this patient's heart, and tell me whether the heart is normal or diseased, and if found abnormal, whether that abnormality is organic or inorganic, and if organic, whether the disease is in the walls of the heart or in the valves. If in the valves, what particular one or ones is involved, and whether the lesion, if you succeed in discovering one, is obstructive or regurgitant.

I avoid the history of the case, in this particular instance, because I want to teach you that you can very frequently determine the exact condition of the heart or lungs, and, indeed, of some other organs, without a single word from the patient.

This fact has its value, but for all that, symptoms and history in most cases are of unquestioned utility in certain cases. But, inasmuch as so many cardiac diseases are practically symptomless for long periods of time, it seems to me that you will require special training in obtaining the ability to decide at once, whether a heart is able to do its work or not.

[The members of the class individually examined the patient, and all declared that the heart of the patient was not normal, and that he had valvular disease of the heart. They were not, however, certain as to the character of their findings, and the case was then "demonstrated."]

Let me go over this case systematically. I shall comment briefly on the different diagnostic features in order that you may, in cases you examine subsequently, take advantage of certain practical methods of differentiation. By inspection, you will note, in addition to the now subsiding dyspnoea, that he has the arcus senilis, that he is a much older appearing man than his stated age of 58, that his expression, while not one of absolute distress, is one that shows more or less anxiety. You will note, too, in the color of the skin, that the skin of the face shows that the capillary circulation is not good. The vessels of the face are prominent. The lips are slightly cyanotic. The bloodvessels of the neck show more pulsation than is ordinarily seen in even thin people. If we now turn our attention from this general inspection of the patient, which should always precede what might be termed a local inspection, it will be noted that the apex-beat is not in its normal position; in fact, that what is apparently the area of impulse is fully three times as large as normal and that it is fully an interspace lower than the usual position of the apex-beat in an adult when standing, and you also see that the impulse is seen outside of the vertical nipple-line. If we find (and I do find by percussion of the neighboring organs) that the heart is neither displaced by lesions above or below it, or on the right side, and that the heart is not exposed more than usual by disease of the adjacent lung structure (which percussion again tells me), I shall be compelled to regard this displaced position of the apex-beat, the lowering and the extension outward, as well as the increase in the size of the area of the cardiac impulse, as signs of enlargement of the heart.

You have doubtless observed that I have departed from the natural and prescribed mode of applying the different methods of examination, and that I have percussed even before I have finished with the method of inspection. It is often necessary to do this, for the findings by all the methods are confirmatory, and it is necessary for me to percuss in order to determine whether anything beside enlargement of the heart itself had caused the displacement of the apex-beat. While I am amply satisfied by percussion alone that it is the heart itself that is responsible for the displacement of the apex-impulse, I shall, if necessary, confirm it by auscultation later. You will note, too, when I come to auscultate, that I will at the same time palpate, palpate the apex-beat when I am listening over the aortic and pulmonary areas, and palpate the carotid artery when I am ausculting the mitral and tricuspid areas. The order of application must be often altered in applying the various methods, and a slavish adherence to their logical employment, as, first, inspection, then palpation, then percussion, and then auscultation, is not always desirable, and might even defeat the very object of your investigation. Apply the methods logically and sequentially; but do not be afraid to intermingle them.

The next step in the investigation is naturally to palpate. As I place my hand over the position of the apex-impulse I note a short, sharp slap, instead of a forceful blow; and this peculiar slap of the heart's impulse at once suggests to me that there is present in this heart either a mitral stenotic lesion or dilatation of the ventricle. As I feel the carotid artery there is conveyed to my hand a slight but distinct thrill, which makes me think of atheroma of the carotid, or aneurism; but aneurism of the carotid I at once exclude, on account of the size of the vessel, which, you see, is normal. The arcus senilis, which we noticed in our general inspection of our patient, now begins to assume possible diagnostic importance. As I now feel the radial pulse, I note that the peripheral arteries are slightly atheromatous, and I am almost ready to conclude, but not quite, taking into consideration these three factors, the thrill in the artery without enlargement, the arcus senilis, and the changed radials, that the cause of the thrill in the carotids is atheroma. In our further investigation of the case we may obtain evidence that will affirm or negative this guess of mine. I find no thrill over the body of the heart or at any of the valve areas.

Percussion shows that both the deep and superficial cardiac spaces are enlarged, and that the dulness to the right of the sternum is fully three fingers' breadth, when normally it should not exceed one finger's breadth. I note also that there is dulness along the centre of the sternum above the heart, which makes me think of a dilated aorta or a tumor of the mediastinum, or an aneurism; but so far, with the evidence of atheroma which I have just elicited, I should be inclined, in the absence of pressure symptoms and tumor, to tend toward the belief that this sternal dulness is due to a dilatation of the aorta, secondary to atheroma. However, the changes, if I find any in the character of the heart-sounds, will enable me to be positive as between senile dilatation and sacular or cylindrical aneurism of the aorta.

I now commence auscultation, and, placing my ear over the mitral area first, I note that the first sound of the heart is obscured by a murmur, quite musical in character, and, as I listen still longer I note that this systolic musical murmur is preceded by a short, sharp "whiff," also a murmur, but just preceding the musical one, and fully ten tones less intense than the systolic murmur, and having no musical quality whatever, being simply a short, low-pitched, adventitious sound (low-pitched in comparison with the systolic murmur). At this stage of the investigation it looks very much, gentlemen, as if we had discovered a mitral stenosis and also a mitral regurgitation; but we must hold our views until all the valve areas have been examined. Recall, however, that short, sharp slap of the apex-beat elicited by palpation, and you will see that we have at least, so far in the examination, two feet to stand on for our suspicion of mitral stenosis, namely, the palpatory sign of mitral stenosis and the presystolic murmur heard over the mitral area. Listening over the tricuspid area I hear a systolic murmur, but it has the same general sound characters, with the single exception that it is slightly less intense, as the systolic murmur I heard over the mitral area. There is no difference in pitch of these two systolic sounds, and, while I do not doubt that this tricuspid valve occasionally leaks, it does not, at this examination, give any evidence of that regurgitation by any murmur distinguishable from the one heard over the mitral area, which I infer from its lateral transmission, and the enlargement of the right ven-

tricle, as shown by the greater outward than downward displacement of the apex-beat and the extension of the percussion dulness to the right of the sternum. Besides, there is at present no venous systolic pulse in the veins of the neck, nor is the liver enlarged, and I can find by palpation no evidence that the liver pulsates.

We cannot, therefore, from any sound characters present in the murmur as heard over the tricuspid area, diagnose the presence of tricuspid regurgitation, although I presume that at certain stages of this case regurgitation at the tricuspid orifice has taken place, and will doubtless do so again, when this patient's heart becomes even more dilated than it now is, for I have already decided, from the palpatory character of the apex-impulse (and a few subcrepitant râles, the residuum of a pre-existing hypostasis in the lungs, secondary to a failure in compensation), that the enlargement of the heart made out by percussion was an enlargement due to predominant dilatation, and not to hypertrophy. As I listen over the aortic area I hear a very loud, long, somewhat rough murmur, which almost completely obscures the first sound, so much so, that in order to determine that this murmur does not occur, with the second sound, I palpate the carotid artery, and find that I hear the murmur at the same time that the blood stream dilates that vessel, and hence this murmur must occur with the impulse of the heart, and, in this area, with the first sound of the heart. This murmur is so loud that it can be heard easily, and that is one reason why I have allowed each of you to examine the case separately, for if you cannot determine that the heart-sounds are modified by the presence of what we call technically an endocardial murmur, your ears will indeed require special training. I hear the same sound over the pulmonary area also, and it is equally loud there, and the murmur presents no difference in pitch and quality, and I am, therefore, satisfied that the lesion producing this murmur is in the aorta and not in the pulmonary artery, leaving out of consideration altogether the supposed infrequency of the right-sided heart lesions in any save congenital cases. Now there are eight or nine different lesions that will produce a systolic murmur in the aortic area, and at some future time I will have the opportunity of pointing out the differential points connected with systolic murmurs in

this situation, but this particular case seems so plain that the differentiation at this time would seem theoretical rather than practical. Before giving you my opinion as to the nature of this particular systolic murmur, let me say that it represents stenosis at the aortic valve, as is shown by the character of the pulse, a slow beginning one, the transmission into the vessels of the neck, and the enlargement of the left ventricle, for all the enlargement of the heart demonstrated by percussion was not due to enlargement of the right ventricle, but some was due to enlargement of the left. The point we have to determine is whether this systolic murmur I hear in the aortic area is not also the one I heard over the mitral area, and consequently the previous conclusion of the presence of mitral stenosis and regurgitation be an erroneous one. Let us see. As I trace this murmur down the chest to the mitral area I can hear it very distinctly, but when it blends with the mitral murmur, as it were, I can easily perceive that there is a distinct difference, not only in the intensity, but also in the quality and pitch of the two blended systolic murmurs, for the aortic murmur is so loud that you cannot, if you tried, prevent some of its sound elements merging with the sound heard over the mitral area. The differences between these two systolic murmurs are, indeed, so marked, that there is no difficulty whatever in deciding that the murmur as heard over the mitral area is distinct from the systolic murmur heard over the aortic area. We have two first sound murmurs, then, to deal with, one transmitted up the neck, and the other transmitted to the inferior angle of the scapula; the first, with the concomitant evidence, showing the presence of aortic stenosis, and the other, heard over the mitral area, with still more convincing concomitant evidence, showing the presence of mitral regurgitation, the presystolic murmur forming part of this concomitant evidence in favor of mitral regurgitation. There is present both mitral regurgitation and aortic stenosis, and now we are in a position to attempt to determine the exact nature of this presystolic murmur we heard over the mitral area. A presystolic murmur does not always mean mitral stenosis. It does not always mean that lesion when aortic regurgitation is present. Sometimes the so-called Flint murmur is found, when the aortic valve leaks, and the regurgitant stream floats out the curtains of

the mitral valve sufficiently to produce a presystolic murmur, without there being of necessity a lesion of a stenotic character at the mitral orifice. But, is there any evidence in this case of aortic regurgitation?

The special signs of aortic regurgitation are a second sound murmur, heard in the aortic area and propagated downward, and in rare instances heard with greater intensity over the mitral or tricuspid areas than over the aortic. Let us interrogate the second sound. Listening with the greatest attention over the aortic area I can hear no second sound whatever. I can hear no second sound over the pulmonary area. It seems to me, therefore, that we can interpret the absence of the second sound in both these areas as being due to the same cause. There are several causes that will diminish the intensity, and possibly render inaudible the second aortic and pulmonary sound, one of which is decidedly weak heart action, the other is interference from the outside with the transmission of the sounds, and still another is the rigidity of the valve structures from the presence of atheromatous deposits to such an extent that the valve loses its snap, or closes so slowly and clumsily as not to produce the characteristic valvular sound of the closure of the semilunar valves. Have we here an aortic regurgitation without murmur? for the second sound is inaudible, but it is not replaced by a murmur. I think not, because if there were a regurgitant stream here in consequence of gross incompetence of the aortic valve, I believe we have sufficient evidence in the extreme roughness of the aortic first sound murmur to believe that no regurgitant stream could occur against the aortic valves without producing a characteristic murmur with the second sound or during the time the sound should be heard. The pulse, which, of course, is modified by the presence of the aortic stenosis, would still show some evidence of the water-hammer character, but such pulse modification is not found. I, therefore, rule out aortic regurgitation. The absence of the pulmonary second sound might, under certain circumstances, be interpreted as a sign of tricuspid regurgitation, but we also lack any other evidence of tricuspid regurgitation, and hence we can only regard the absence of these two second sounds as an evidence of atheroma, of which we have had abundant previous testimony, in the radial artery, the thrill in

the carotids, the dulness in the course of the aorta, and the arcus senilis. We are now in a position to diagnose with a degree of reasonable certainty, mitral stenosis, mitral regurgitation, aortic stenosis, atheroma, with dilatation of the base of the aorta and valves, and dilatation of the ventricular cavities of the heart.

We have not been able to diagnose with certainty either tricuspid regurgitation, aortic regurgitation, or pulmonary stenosis, all suggested lesions. Now the question will naturally arise, are all these lesions of the heart due to the discovered atheroma? I think not, for I have never seen atheroma give rise to the amount of enlargement present in this case. This patient had an attack of inflammatory rheumatism some ten years ago, and it is quite reasonable to assume that that rheumatism was responsible for an attack of endocarditis, which eventuated in a chronic valvular lesion of the mitral orifice and valve. The aortic stenosis may be the result either of the same or subsequent attacks of endocarditis, but is more than likely due to the atheromatous changes we find in the aorta. It is possible that, with the supervention of the atheromatous change he sustained his first "rupture of compensation." He has had three distinct attacks of cardiac breakdown, and the one from which he has now partially recovered has been the most serious. He has had dropsy, due to the heart, three times, and it is really marvelous that he is able to appear before you to-day. He has been very successfully prescribed for by Professor Bartlett, under whose care he has been since his stay in the hospital. I say successful advisedly. Think, for a moment, gentlemen, of making this man of 58 with a heart practically aged 78 fairly comfortable. I need say nothing to you about the ultimate prognosis; that is self-evident.

This man's urine has been repeatedly examined. Except once, it has always contained a trace of albumin, and the specific gravity has varied from 1002 to 1026. Hyaline casts of the small variety were always found, and sometimes broad hyalines, and once a few granular casts. A single examination of the urine would have left considerable doubt as to the nature of his kidney lesion, for both "heart kidney," if I may use that expression, and interstitial nephritis were suggested by the urinalysis; but the successive examinations, under varying cir-

cumstances, can only lead to one conclusion, namely, interstitial nephritis, plus lack of sufficient heart power to enable the kidneys to functionate properly. This fact makes the excellent therapeutic results all the more remarkable. This man was so dropsical when he entered the hospital, it was impossible for him to lie down.

Now, gentlemen, the case is again in your hands. I want each one of you to make out the percussion dulness for yourselves, the slapping character of the apex-impulse, the thrill in the carotids, the soft, whiffing murmur presystolic in time, the musical mitral regurgitant murmur, the rough aortic murmur, and the absence of the second sound over the basal areas, and I want you to pay especial attention to the differences in the pitch and quality, as well as intensity, of the various murmurs, for it is upon data furnished by these apparently insignificant sound modifications that we make our diagnoses in heart cases. These differences in quality and pitch are beautifully marked in this particular case, and that is one of the reasons I am so anxious to have you fully appreciate every little variation I have pointed out, for I shall in the future call upon you to make diagnoses in heart cases by making use of just such data.

Let me say, in closing, that we started out to determine the cause of the most obvious symptom presented by the patient, dyspnœa. Have we solved the problem? Yes and No. No, if we consider the heart absolutely and totally responsible. Think for a moment. This man has five distinct reasons why he should be short of breath: First, his valvular lesions and the accompanying dilatation; second, the atheroma of the heart itself and the base of the aorta; third, the interstitial nephritis; fourth, the residuum of a nearly-gone hypostasis of the lungs; and fifth, more or less senile atrophy of the lungs themselves. Here is presenility for you: Seventy-eight at 58.

DAMIANA AND ITS USES IN MEXICO.—Dr. John Uri Lloyd says that damiana is the native Mexican tea, and is used by the lower or poorer classes exactly as tea is employed in the United States. They do not consider it a harmful beverage, nor one that possesses active medicinal virtues. Those medical gentlemen who have vaunted this harmless leaf as a potent aphrodisiac evidently did not know of this.

HOMŒOPATHY FROM ALLOPATHIC SOURCES.

BY W. A. HINCKLE, M.D., PEORIA, ILL.

THE frequent disparaging remarks concerning homœopathy by those physicians who have not investigated the subject, and consequently mistake infinitesimal dosage and sugar pills for the fundamental principles of this system, have not been without their deleterious influence on the minds of the laity. That the infinitesimal dose or the method of administration is not an essential of homœopathy is obvious to all who know aught of the subject. A careful perusal of any of the late works on materia medica by allopathic authorities will show how rapidly the real fundamental principle of homœopathy—*similia similibus curentur*—is being recognized and applied by them, though they attempt to disguise the fact by citing the results as examples of the dual action of drugs or substitution.

In *Materia Medica, Pharmacy and Therapeutics*, by Samuel O. L. Potter—a book now in its ninth edition and much used as a text in allopathic colleges—we find many instances of drugs recommended homœopathically. Of the action of muscarine he writes, “it is very like that of pilocarpine, producing profound salivation, lacrymation and sweating;” also, that “it has long been used with marked benefit for night sweats.” Of pilocarpine, “it causes prompt and profuse perspiration and salivation;” also, that “ptyalism is frequently relieved by minute doses of pilocarpine, and similar doses used thrice daily will check profuse perspiration.” He says, “In exophthalmic goitre thyroid extract has been beneficial, and though some observers report ill-effect from its use in this disease, others show that they were due to a primary aggravation of symptoms which subsides when the dose is largely reduced, and is then followed by a distinct improvement under the administration of a very small quantity of the remedy.”

Of arsenic he says, “In full medical doses continued for some time, it causes itching and œdema of the eyelids, ptyalism, nausea and vomiting, diarrhœa and dysentery, epigastric pain and soreness, feeble and irregular heart, dyspnœa, disordered

sensibility, herpes zoster, urticaria, eczema and other skin eruptions, jaundice and albuminuria." "In the first and most usual form of arsenical poisoning there is burning pain in the throat and stomach, extending over the abdomen, vomiting, thirst, bloody stools, strangury, suppressed, albuminous or bloody urine, rapid and feeble heart, great anxiety, cold breath, finally exhaustion and collapse—a group of symptoms resembling cholera." He later cites it as a valuable remedy in cholera and cholera infantum; also says, "It is of special value in irritable dyspepsia, gastralgia, pyrosis, gastric ulcer of cancer, regurgitation of food without nausea, diarrhœa coming on immediately after taking food, vomiting of drunkards and chronic alcoholism." "In chronic, scaly and papular skin diseases its value is very great."

Of *asafoetida* he says, "In small doses continued, it causes impaired digestion, alliaceous eructations, acrid sensation in the fauces, gastralgia, flatulent distention, fœtid flatulence. Full doses produce various nervous and hysterical phenomena," yet "the emulsion is extremely serviceable in the flatulent colic of infants," and "there is no better remedy in hysteria and hypochondriasis with indigestion and flatulence."

"The brain is congested by belladonna, headaches, vertigo, busy delirium, and hallucinations being produced, the latter from a selective action on the gray matter;" yet withal, "in cerebral and spinal hyperæmia, congestive headaches, encephalitis, meningitis and myelitis it proves one of the very best remedies." "Respiration is increased and bodily temperature elevated. A diffused eruption of scarlet color, closely resembling the eruption of scarlet fever, is produced on the skin and fauces by belladonna, with dysphagia and sore throat, and is sometimes followed by desquamation of the epidermis." "In scarlet fever it relieves many of the symptoms. Its prophylactic powers against scarlet fever is believed in by many of our best practitioners, though questioned by many others."

Of *hyoseyamus*, this allopathic authority writes, "The delirium produced by it is never furious and is without hyperæmia, but is accompanied by insomnia," and that "it is by far the best agent to use in acute mania with great motor excitement, obstinate insomnia, and varied hallucinations. Chronic mania has been more benefited by it than by any other drug."

Stramonium excites a greater degree of cardiac irregularity and a more furious delirium (than belladonna), and seems to have a special affinity for the generative apparatus, being decidedly aphrodisiac in full doses." "In nymphomania with great mental depression it is frequently effective, and in mania of furious character, particularly the puerperal form with suicidal tendency, it is highly serviceable."

Bryonia "has a specific determination to serous and synovial membranes, especially the pleuræ, and is also irritant to muscular fibres and to the bronchial mucous membranes, causing dry, continuous, shaking cough, with soreness behind the sternum." "It is a most valuable drug in the second stage of serous inflammations, especially in pleurisy, pleuro-pneumonia and pericarditis, to limit the extent of the effusion and to promote absorption." "It is one of the best remedies for a 'cold on the chest,' with dry, shaking cough, soreness or shooting pains." "It produces cerebral congestion, with frontal headache, vertigo and epistaxis; also hepatic and renal congestion, burning pains and tenderness in the hepatic region, with bilious disturbances, amounting sometimes to severe jaundice." "It is a drastic purgative and a powerful diuretic." "It has been used with success in common, continued or gastric fevers, relapsing fever, congestive headaches increased by stooping, bilious headaches with vomiting, gastralgia with pyrosis and soreness of the epigastrium, constipation, cholera infantum during dry, hot weather, congestion of the liver, croup and threatened mammitis."

He tells us that cantharis causes scanty, albuminous urine, which is irritating and voided with difficulty; also, that it is "an admirable agent in acute desquamative nephritis after the active inflammation and fever have subsided, to reduce the albumen and blood in the urine;" also, that "drop doses are particularly useful in irritable bladder with frequent desire to micturate."

In large doses, cinchona "in many well-authenticated instances has apparently caused a well-marked febrile paroxysm beginning with chill, then fever and headache, which gradually subsides with slight perspiration. So, also, quinine, while incapable of producing intermittent fever in a healthy person, may, if taken in large doses unnecessarily, throw the nervous-

system into high commotion, and if untimely used by a malarial subject may reproduce the paroxysm with greater or less severity." We are further told that in malarial affections is its great field of action.

Colocynth, he informs us, produces watery evacuations with much colicky, griping pain, and that in small doses it is an efficient remedy in colic.

"Indeed," as Dr. Ringer said in the early editions of his *Handbook of Therapeutics*, "the phenomena produced by mercury are singularly similar to those which will result from syphilis, and the serious symptoms known as secondary and tertiary syphilis can be produced both by syphilis and mercury. The drug is a specific antagonist to the syphilitic virus, probably by reason of its affecting the same organs and tissues of the body on a similar line of action, both poisons mutually destroying each other in the organism." "Accuracy of diagnosis is an absolutely necessary preliminary to the administration of mercury, for where there is no syphilitic virus to be antagonized, the constitutional effects of mercurials will become manifest sooner and may do great harm in feeble subjects, besides the risk of mistaking them for the result of the disease supposed to be present." The bichloride, he tells us, produces nausea, vomiting, bloody diarrhœa, affecting especially the lower bowel, and that "the dysentery of adults with slimy, bloody stools is best treated by small doses (gr. $\frac{1}{100}$) of the bichloride."

Ipecac, he tells us, is a nauseant emetic and cathartic; that it produces catharsis, with stools of a peculiar bilious character; also, that in small doses, "it is an efficient anti-emetic in vomiting of nervous origin, and especially in the vomiting of pregnancy." "Diarrhœa of simple, but painful, form, especially the summer diarrhœa of young children and that of teething infants, are often greatly relieved by ipecac in doses of from 1 to 5 grains." The symptoms of hay fever, bronchitis and asthma also result from its use, and in such we are assured it has rendered good service.

Rhus toxicodendron, according to this author, produces, besides the characteristic skin lesions of ivy poison, pains of a rheumatic character, and he cites authority showing this remedy to be very efficient in both of these conditions. Think of it, poison ivy recommended by an allopath for vesicular eruptions;

quite as bad as his recommendation of bromide of potassium for acne.

The dosage recommended is quite homœopathic also, not the 3x nor C.M., to be sure, but still much less in quantity than the dosage of the same remedy recommended for its antipathic effect. Pilocarpine is recommended in gr. $\frac{1}{8}$ to $\frac{1}{2}$ to produce diaphoresis, but in gr. $\frac{1}{30}$ to check profuse perspiration. These, and a host of similar medicinal recommendations from this and other allopathic authorities, may explain why they, who but yesterday ridiculed homœopathy and maligned its advocates, would now welcome them as brother physicians.

MENOPAUSE THERAPY.*

BY JOHN HUTCHINSON, M.D., NEW YORK CITY.

As the world of medicine grows older every phase of practice seems to admit of an increasing diversity of opinion in respect to its reality, its importance, and its promise. Different men look at the same thing in different ways. What impresses one mind as significant will seem to another hardly worth while to consider. That which becomes an intricate and difficult study for one physician will be almost intuitively discerned in its completeness by a professional brother, who chances to be the man possessed of special aptitude and discipline for that particular subject. Such platitudes as these come to mind when we approach the consideration of familiar, though possibly neglected, medical topics.

But it is hardly possible for one observer alone to reach important conclusions that will cover an extensive field in medicine. He is largely dependent—he is enormously indebted to the statistics and precedent of general medical literature. On what he accepts from that storehouse as truth he bases much of whatever he is able to add to its substantial treasure. He is hindered from attempting many things, because in this great profession so much concentrated effort must be brought to bear

* Written for the N. Y. Clinical Club, also read at a meeting of the Alumni of Alpha Sigma fraternity, in New York City.

upon the smallest detail of a topic, if there is to be success in pointing out clearly the principle that gives an intention its highest aim.

Yet all the distinctive branches of medical practice must sooner or later elicit from the physician his definite opinions. Whether he is conscious of it or not, he sustains a positive attitude toward every practical question. He knows whether he would reduce fever temperature by the cold bath or by other means. He has a method of caring for his cases of pneumonia that is opposed to the stimulation treatment, or *vice versa*. He will inevitably acquire his own point of view by virtue of his own circle of activity. His work has impressed upon his personality certain facts, which in turn led to *his* conclusions.

For all the facts in medicine every honest man is thankful. Theories come to entertain, but remain to bore. The facts of human life that we all accept are those covering well-marked periods of physical expression common to both sexes. Infancy, childhood, youth, manhood or womanhood, adult life, middle life, and old age no longer suggest phenomena. They are the simple everyday facts of existence, in themselves not appealing to the attention of the physician. With puberty and the "change of life" in both sexes, all is quite otherwise. Here the physician is in demand, and his good work is nowhere else more valuable.

All the striking phenomena of these periods are not to be found in the books. You and I omit every year of our lives to add what we might from our own observation to what is useful in this one particular department of medical records. Hundreds of significant incidents in the experience of these classes of patients elude our knowledge, because in the routine and sometime press of work the unusual symptom or condition is forgotten as soon as relieved, or it is replaced in our mind by another interest for the time being, and so neglected as far as any record or report for the profession is concerned. This is unfortunate as regards our special therapeutics, the homœopathic. No one need tell you and me how valuable is the confirmed symptom under any particular drug in our *materia medica*, if either you or I have already made that verification in personal practice. This knowledge is to both of us fully

established; but every new verification is prized because it is sure to contribute some additional quality of its own.

Beyond the groundwork of fixed or natural conditions the medical scholar is ever penetrating into a realm that seeks to provide what Nature has denied the patient, or other influence has made desirable for him, because Nature was thwarted. Within this realm of inexhaustible therapeutics the physician chooses well, and with most gratifying results.

These results may seem to us more nearly perfect in certain kinds of work than in some others. Personally, I believe that the homœopathic prescription is always of greater apparent benefit in those disorders wherein the mental state is more or less disturbed. This is only another way of my saying that the homœopathic remedy is most strikingly useful in the most serious diseases. When the mind has become profoundly disturbed, agitated or depressed, in conjunction with tangible bodily ailments, our classic symptomatology enables us to select with astonishing accuracy a remedy that will often clear the case like magic of all its morbid characteristics. I say "astonishing accuracy," because times without number has the homœopathic remedy accomplished in such cases what great men in medicine have said was impossible. In the life of woman bodily irritation is peculiarly liable to leave a mark upon mental life. It is true that most women will endure an infinite amount of wear and tear in the household, with its cares of monotonous routine, child nurture, and petty matters of real importance—a woman will bear all this without murmur, and with seeming strength, when a man under the same pressure would go insane. And so, when the children are grown, the household cares lightened, and the time arrives when the mother may take some well-earned rest, she is confronted with a new physical state, unpleasant and appalling, though unlike the troubles of menstruation and gestation which she has already borne.

But the menopause is not a disease. It is not a disorder, nor necessarily accompanied by any disturbance whatsoever. The "change of life" in women, or the menopause, is merely the period when menstruation normally disappears. This is, of course, distinct from artificial menopause, which suggests special study, and also does not include premature non-surgi-

cal menopause (puberty at 11, menopause at 23 years), of which a few cases are recorded; more have existed, and I believe some have been known to the practice of physicians at present in this room.

Menopause means the time of the normal disappearance of the menstrual function. It usually occurs between the ages of 40 and 50; 45 and 50 is, perhaps, the average limit. Some women cease to menstruate before they reach the age of 40. Some have not menstruated after 30. The duration of menstrual life is from 30 to 34 years. Current observation shows that the modern woman is menstruating longer than did her foremothers, and 34 years seems likely to be the average menstrual life for the present. As puberty may arrive at any time between the ages of 10 and 20, so the menopause may occur between 30 and 80. There are two contradictory statements scattered somewhat impartially throughout the literature, to the effect (1) that when menstruation is established early in life, its termination is postponed beyond the average limit; (2) that when the appearance of the menstrual function is delayed, its cessation is earlier than the average limit.

Still another view formulates the proposition that when the function is established either abnormally early or late, it will disappear comparatively early.

In my opinion, there are so many influential factors on this point, that stable conclusions are exceedingly difficult. The facts of marriage, spinsterhood, special diseases, child-bearing, climate, social life, habits, occupation, all render this question most perplexing.

The menopause is a normal epoch in the life of women. It should be met and gone through with without material discomfort. But how few reach it or pass through it with anything like normal experience! So distressing are the days and months, and even years, that many a woman supports at this crisis, "the critical age," that it is now no wonder that the laity regard the "change of life" as a fearful chasm over which few may cross safely, if at all.

An unhappy state of health at this period has for long been accepted as the inevitable, to be suffered like bad weather, without practical protest. It is a curious fact that many persons live their lives through without appreciating the existence of doctors

of medicine, excepting when life is *in extremis*. It never occurs to these people that anything can be done by the medical profession for the alleviation or cure of an hundred and one minor ills from which they suffer. And this attitude is not the exclusive property of the uneducated class either. I have seen many a cultivated and scholarly man or woman who, without any knowledge whatever of therapeutics, would advance his or her conclusions quite as if they were final, and could not be refuted in any way by the judgment of a medically-trained mind. The way in which illness is popularly regarded at the menopause is an illustration of this state of things.

In the management of ills incident to the time of life when woman's menstrual function subsides, no work but that which is exactly appropriate will suffice. Here is a state of affairs where the psychologic elements in the makeup of the case are prominent. They are a part of the disorder, and must be regarded as a factor which imposes an additional burden or responsibility upon the therapist. Yet, on the other hand, we must welcome as of value whatever characteristics of the patient there may be to broaden our symptomatology of the case. For such will go far toward helping the doctor to do good work, if not quick work, the latter being well-nigh impossible in this field.

Since good health at the menopause is so rare, the subject of possible sufferings during the climacteric should receive its meed of attention. This subject is now included with menstrual irregularities, and is regarded as a mere item in that classification. It should be accorded generous place by itself. When we reflect that it is by no means unusual for the woman who has borne a large family of children, meeting cheerfully the physical strain consequent upon their rearing, and finally anticipating her freedom from so much maternal care,—when we reflect that this mother may have even ten years of physical unrest and torture at the cessation of the catamenia,—surely it is not asking too much of medical men and women to devote themselves to the solution of such a problem in therapy as is thus presented. For two years, and not ten, are long enough of purgatory before an entrance into that condition of felicity which every woman has a right to expect—a period of physical well-being after her faithful accomplishment of domestic responsibilities.

It is important for her after-health that menstrual irregularities or disturbances be properly recognized and receive proper medical or surgical treatment, as the case may demand. When requirements of the organism are ignored throughout a term of years, or are inadequately cared for, it is reasonable to conclude that the consequences are accentuated, and that post-climacteric life will suffer.

I believe that no invalids experience more exquisite torture than do those patients who have come to realize what the "change of life" means. We cannot say that the condition has no pathology simply because it has not been found, or that it is not constant. We do know that there are congestions of the head, of the liver, or of the lungs. There appears to be an ataxia of the vaso-motor nerves analogous to that of the cerebro-spinal system that obtains in hysteria. It has been said that there is no arterial tension, which statement is, in my opinion, not true for all cases. The *molimen menstruale* indefinitely prolonged describes what some women suffer.

The truth is, that medicine has so long looked upon this state as a phenomenon needing no explanation, but to be borne by force of will, that we have come to overlook many of the remedial features, and so have not offered the sufferer that relief which our drugs and other agencies can furnish, and which we are obligated to provide.

I take it that the well-educated homœopathist necessarily views his cases in a somewhat different light than does the man who uses drugs according to another system; than he, for instance, who, to reduce temperature, selects an antipyretic; to move the bowels, a cathartic; and so on. While the homœopathic physician looks at the whole condition of the patient, and says, "This patient has confined bowels, he has a dry, hot skin, high fever, anuria, is restless, exhibits mental anxiety, and gives the impression to all about him as being very ill. I will give him aconite, and, as that is the indicated homœopathic remedy, his anxiety will fade away, he will become quiet and soon sleep, his skin will moisten, his temperature will fall, and in reasonable time his bladder and bowels will act." We can, in the light of such result that has been repeatedly secured, call aconite an antipyretic, a diaphoretic, diuretic, cathartic, analgesic, hypnotic, or anodyne.

When we prescribe for a state that embraces much that is psychologic, because physical disturbances have made a deep impression upon mind and temperament, the attenuated homœopathic remedies cannot be surpassed by any known drugs in other form. I mean when the right remedy is administered by a specialist in this order of advanced prescribing. I have known a powder of one of our many remedies appropriate to the ills of the menopause do active work for days and weeks, bringing the patient to a condition approaching health during that interval, till a repetition was in order or another remedy needed.

Homœopathic materia medica is replete with remedies of exact suitability to the disorders of the menopause. As yet, however, I do not know of an exhaustive repertory of them to be had. In a way this is an advantage, for, like any other successful prescription, one for ills accompanying this epoch must be made upon the total symptomatology. Undoubtedly, almost any drug in the collection of 1500 or more that have been given place in the materia medica may be required in some case.

Almost any striking ailment at the menopause may be traced back to its source, or to an origin that bears some relationship to weakness or illness, or constitutional defect exhibited in earlier life, perhaps earliest childhood, but which failed to receive due attention then. So, as in selecting a remedy for another ailment, the physician will get in his best work by taking into careful account the patient's past history, as well as everything else bearing upon and including the peculiar symptoms which may be first presented to his attention. A drug to be permanently useful must by its pathogenesis embrace the essential elements or characteristics of the pathology and symptomatology, and the therapist will discern the close relationship that exists between the two.

It is not difficult for the close student to read out of his materia medica much that is illuminating and sound in the field of pathology. The very fact that a certain drug is demanded in no uncertain force brings to his consciousness, because he knows his drugs, the fact that tissue changes are taking place, that degeneration is going on, that circulatory phenomena of morbid character, whether vacillating, unstable

or destructive, are active. In time this man's pathological studies embrace an area peculiarly his own. You cannot say that they are unsound, that they have not a definite value, or that they won't do good service. I say that you and I will have to revise some of our lessons learned at school, or substitute therefor what has been taught us by that worthy master, experience.

When the attenuated, potentized preparation of such drugs as arsenicum album, veratrum album and lachesis relieve as they do most distressing sufferings of man or woman, or cure as they do most thoroughly and well the exquisite tortures of the menopause, can we, knowing as we do the great provings of these substances, knowing their power to cause poisonings of the human organism, of violent character and tremendous virulency—can we do less than to conclude that, inasmuch as all the symptoms of such poisoning are dispelled by the remedy, that the pathology did not exist? Certainly not. But this is only in passing. Suffice it to say here that these very drugs, arsenic, veratrum and lachesis, will do wonderful work at the climacteric.

Lachesis, to my mind, is the greatest remedy we have for disorders at this period. I mean that it is perhaps most frequently useful. It covers a very wide sphere, including much of the mental, the temperamental, and the bodily phenomena. I have found it best to use it only in the very highest potencies, rarely lower than the 200th, and then very seldom to repeat.

Vipera is another remedy highly recommended in similar sphere.

It has become my habit to think of remedies for the menopause in groups of three or more. This is only a personal fancy, and it might not appeal to another prescriber. I do not know how I came to adopt it. Possibly from discerning a similar thread of the same color running through the trio.

Thus, in the group mentioned, lachesis, arsenicum, veratrum, it is easy to note the mental gloom of them all, the subjective temperature sensations, the sudden physical crises. Their contemplation reminds of cimicifuga, which has profound sadness, a striking condition of faintness starting from the stomach, which is only one of the many valuable phases of its wonderful sphere. This, in turn, suggests ignatia, with its "all-gone-

ness" seemingly radiating to the epigastrium from the solar plexus. Only one subjective feature, it is true, but, ah! of stupendous significance. And then there is sulphur, with its forenoon sinking sensation, requiring food. Or, perhaps, natrum muriaticum is the remedy instead; none more satisfactory when it is indicated.

Belladonna, calcarea carb. and conium, in their order of chronicity, form a group easily remembered, and each remedy is readily differentiated. The first two point back to infancy, and urge us to turn the pages of that first volume of life's journal. But however this may be, the three remedies will do their work when present needs demand them, if we will but modestly accept the *dictum* of those who have enriched the knowledge of their best employment. For instance, calcarea should not be too frequently repeated at the menopause, nor with adults. It should follow sulphur, if the latter have been prescribed, not precede it.

Pulsatilla, sepia, silica is another group in order of chronicity. Silica in one dose of a potency will accomplish marvels. Its usefulness in constipation alone entitles it to high esteem. China, ferrum, sanguinaria suggest their own places in this therapy.

For the profuse perspirations that increase the patient's distress, *tilia europæia*, *jaborandi*, and *hepar sulphur* are most valuable, one or another fitting the case as a rule.

Aconite, cactus, chamomilla have some characteristics in common. *Lycopodium*, *urtica urens* and *caulophyllum* come into another class of indications, as is clearly obvious.

Then we have *bryonia* and *rhus*, *gelsemium* and *chelidonium*, *picric acid* and *phosphorus*, *amyl nitrite* and *glonoin*, the latter couple for the headaches following "flushings." I remember, however, one case of this kind that received permanent benefit from a few doses of belladonna 30.

Congestive neurasthenia at the menopause is so frequently met with, hypomania, melancholia, hysteria, cardiac distress, and lithæmic crises are so pronounced at that time, that the physician may sometimes lose sight of the fact that these conditions are more serious because of coincidence. All the developmental periods—of dentition, puberty, the menopause, each one of which should introduce the possible patient for the time being to the enjoyment of a greater measure of blessing

in life—are attended with strain that may test every fibre of the being. The normal ideal is that this test shall be happily tolerated; the real state of things is too often out of harmony with the ideal.

Normal menopause is brought about by atrophy or inhibition of a local menstrual ganglion or nerve plexus, rather than of the generative organs, though these are said to diminish in certain structural elements or parts. *Per contra*, I can report two cases of procidentia in women over 70 which presented in each the entire uterus depending wholly without the vulva, and showing no sign whatever of atrophy.

It is reasonable to suppose that the partial or complete disappearance of the hypogastric plexus of nerves, which is said to take place, should occasion changes in functional sensations of the individual, certainly if this physiologic process is interfered with by atonicity or radical impairment of any one or more organs, structures, or regions of the body.

Displacements of the pelvic organs, the growth of neoplasms, or the onset of local disease will remind the physician of all that surgery and other mechanical treatment offer. No symptom should be overlooked. That of hæmorrhage points to possible carcinoma, and should be investigated.

While it is true that the medical profession has within its power the salutary control of climacteric phenomena, which may appear at whatever may prove to be the "critical age," let us not forget that preventive medicine offers the best aid to scientific endeavor. We are provided with every instrument that will be needed. We have a splended prophylactic equipment in our system of therapeutics. This, as it has ever done, by the very spirit of its structure, will always emphasize the importance of fortifying health through every stage of life. We must conserve the vigor of woman by caring faithfully for her health from earliest infancy till she accomplish safely those years of well-earned comfort and blessing beyond the menopause.

HAHNEMANN TO-DAY.

BY CHARLES MOHR, M.D., PHILADELPHIA.

Professor of Materia Medica and Therapeutics in the Hahnemann Medical College and
Hospital of Philadelphia.(A paper read before a meeting of the Tri-County Homœopathic Medical Society at
Chester, Pa., in honor of Hahnemann's Birthday.)

THE invitation of your President, Dr. Williams, to address you on the character of Hahnemann is gladly accepted; not so much, however, to eulogize him, but more in the hope that we, who call him master, and truly point to him as the father of our system of medicinal therapeutics, may be stimulated to be his loyal pupils and honest sons.

This much I will say of Hahnemann's personal character: that judging the man from his numerous writings, what was said of Sydenham can as truly be said of him whose birth we honor to-day:

"With him the two main issues of all his endeavors were the glory of God and the good of men. Human life was to him a sacred, a divine, as well as a curious thing, and he seems to have possessed through life, in rare acuteness, that sense of value of what was at stake, of the perilous material he had to work in, and that gentleness and compassion for his suffering fellow-men, without which no man—be his intellect ever so transcendent, his learning ever so vast, his industry ever so accurate and inappeasable—need hope to be a great physician, much less a virtuous and honest man."

Indeed, what manner of man and physician Hahnemann was, is clearly shown in his own words. A personal friend had written to Hahnemann asking for advice as to the choice of a physician for his family, and this was the characteristic reply: "Search for some plain man of sound common sense, who takes great pains to ascertain the truth of all he hears and says, and does not merely look to its passing muster; who knows how to give clear and concise information respecting everything that belongs to his art, and never obtrudes his opinion unasked, or at an improper time, and who is no

stranger to everything else important for a man as a good citizen to know. More especially, let the man you choose be one who does not show temper nor get angry, except when he beholds injustice; who never turns away unmoved from any except flatterers; who has few friends, but these men of sterling principle; who listens attentively to the complaints of those who seek his aid, and does not pronounce an opinion without mature reflection; who prescribes but few, generally single, medicines in a pure state; who keeps out of the way until he is sought for; who is not silent respecting the merits of his colleagues, but does not praise himself; who is a friend of order, peace and beneficence; who behaves well to the poor, and who occupies himself in his own home unseen with some useful work."

If these two quotations really represent Hahnemann's personality—his heart and conscience—what more can be said of him as a man? And now, what of him as a scientist or doctor of medicine? That question I will not answer, but I give the testimony of celebrities of the old school. Sir John Forbes, physician to the late Queen Victoria, says: "No careful observer of his actions or candid reader of his writings can hesitate for a moment to admit that Hahnemann was a very extraordinary man, one whose name will descend to posterity as the exclusive excogitator and founder of an original system of medicine; the remote, if not the immediate, cause of more important fundamental changes in the practice of the healing art than have resulted from any promulgated since the days of Galen himself. Hahnemann was undoubtedly a man of genius and a scholar, a man of indefatigable industry, of undaunted energy. In the history of medicine his name will appear in the same list with those of the great systematists and theorists, surpassed by few in the originality and ingenuity of his views, superior to most in having substantiated and carried out his doctrines into actual and most extensive practice." Urban writes: "The undisputed merit remains to Hahnemann for all time of having directed attention to the pure curative properties of medicines, and of having thus paved the way for a rational and experimental development of the *materia medica*." Prof. Eschenmayer of Tübingen says: "Hahnemann undertook his great experiment with a perseverance and circumspection to

which we cannot refuse our admiration. So much has been achieved that we can only gaze with admiration at this gigantic intellect who conceived the idea of reforming medicine, and showed by example how it was to be done."

But what of this reformation of medicine? What of homœopathy, the system indissolubly connected with Hahnemann's name? Again, I will not answer, but quote the words of Sir John Forbes, M.D., F.R.S., in reply: "The days are long past in medicine when anything merely theoretical could claim prolonged attention. No doctrine, however ingenious, not based on positive, demonstrable facts, will any more be regarded but as a piece of poetical speculation, which may indeed amuse the fancy, but can never influence the conduct of scientific men, much less of practical physicians. But homœopathy comes before us in a much more improving aspect, and claims our attention on grounds which cannot be gainsaid. It presents itself as a new art of medicine, as a mode of practice utterly at variance with that long established in the world, and claims the notice of mankind on the irresistible grounds of superior power of curing diseases and preserving human life, and it comes before us now, not in the garb of a suppliant, unknown and helpless, but as a conqueror, powerful, famous and triumphant. The disciples of Hahnemann are spread over the whole civilized world. There is not a town of any considerable size in Germany, France, Italy, England or America, that does not boast of possessing one or more homœopathic physicians, not a few of whom are men of high respectability and learning; many of them in large practice, and patronized especially by persons of high rank. New books on homœopathy issue in abundance from the press, and journals exclusively devoted to its cause are printed and widely circulated in Europe and America. Numerous hospitals and dispensaries for the treatment of the poor on the new system have been established, many of which publish reports emblazoning its successes, not merely in warm phrases, but in the hard words and harder figures of statistical tables."

And now let me ask, what of us? Do we size up to Hahnemann as a man? Do we study and practice medicine with as much infinite patience? Do we do as much for the acceptance and continuance for the homœopathic therapeutic art? Are

we loyal sons of the master, and of our *alma mater* bearing his honored name? Present day old school reviewers say not. They disagree with Dr. Forbes, and there are not a few of our own brethren who say there is nothing in homœopathy, great as Hahnemann may have been, and the schools bearing his name must teach "scientific medicine" or close their doors. In a recent journal of the dominant school, it is noted that five sons of professors in a homœopathic college were educated in old school institutions and these sons call themselves "regulars." As the college advertises the "advantages of pure homœopathic teachings," the journal says: "Considering the purity of its teaching, the regulars seem to be enjoying a somewhat unusual growth. How long will it be before this old and well-equipped institution will drop its sectarian name and come into the medical profession? Such a move would involve no change in its teaching. It is teaching much science to-day, and some nonsense."

One of our own homœopathic journals recently spoke editorially of the materia medica papers and discussions presented at a homœopathic society meeting as being too many "patriotic effusions similar to school-boy essays, prattling about our God-given law, the memory of Hahnemann, etc., *ad nauseam*," and asks that the homœopathic profession work so as to bring "the homœopathic materia medica down to the present status of medical science within the lifetime of the present generation," whatever that may mean. Even an old school commentator said of the editorial: "We should not have dared to make such an indictment ourselves. One must believe that the words are too harsh and not wholly warranted."

Judging from the quotations just presented, one might infer that to write a materia medica paper bearing on the selection of a medicine for the sick on the homœopathic principle is to "prattle," and to teach homœopathy in a school organized to expound that system of therapeutics is to teach "nonsense."

Without inquiring into several factors that may account for a less number of students enrolled in the homœopathic colleges of the United States now than formerly, many observers have believed it was an indication of the decadence of the Hahnemannian system of practice. Others have believed the lack of increase of homœopathic graduates has resulted from the large number of hours devoted to surgery, the specialties of medi-

cine, and the time devoted to pathological and bacteriological laboratory work, with a corresponding decrease in the time formerly occupied in studying the principles of homœopathy and the *materia medica pura*. If one reads the current journals of our school, comparatively little is found of homœopathically applied remedies by our surgeons and specialists, and the discussions reported in our society meetings are tinged with regret that so little respect is paid to the experience of Hahnemann and the earlier homœopathists, and that scarcely any interest is taken by the homœopathic profession as a whole in making provings. Then chagrin is expressed that notwithstanding old school authorities like S. Solis Cohen and Hobart A. Hare have declared that "*antipyrine* has slain thousands" and "*sulphonal* is a slow and insidious poison to the brain and spinal cord," these agents are daily used by physicians professing to practice homœopathy, and illustrates a fact, often charged, that about the time old school practitioners abandon a drug as useless or positively hurtful, the unreasoning and inconsiderate graduate of homœopathy takes it up for experiment on the sick.

To me there seems much of exaggeration in the cited statements, and others of like import, concerning the lack of appreciation of homœopathic principles. I believe that the vast majority of homœopathic practitioners are loyal to the teaching of the masters of our art, but that occasionally some of them swerve from true principles by the plausible statements of some combative medical egoist, or by the advertisement of some manufacturing pharmacist anxious to exploit his products.

However, we—you and I—must meet all the objections that may be urged against the homœopathic system of medicine, or against the promulgator in whose honor we have assembled to-day. Whatever may be said truly of the value of present day medical science; however much we may appreciate the usefulness of laboratory investigations for purposes of diagnosis, and the desirability of determining the results and the causes of disease by post-mortem examinations and bacteriological tests; whatever may be beneficially accomplished by surgical measures or mechanical treatment, should not for a single moment keep us from developing homœopathy. There are many hindrances to its acceptance by the medical profession at large, but each one of us can by example and precept increase the

sphere of our usefulness as followers of Hahnemann, and largely add to the homœopathic ranks by making converts. People by the million still want something better than the therapeutic measures of old school medicine afford. This is proven by the new cults that have recently sprung up, and by the new schools of mechano-therapy, and what not, all of them increasing with astonishing rapidity throughout the United States, especially since legal enactment has tried to force people to employ only licensed practitioners.

Of all the medical philosophers since the days of Hippocrates and Galen, Hahnemann was the one man who grasped the idea that *disease and drugs could only be known by their effects, and the only practical method of treating the sick could be reached by placing these effects in their proper relation to each other*. Hahnemann says in the preface to the *Materia Medica Pura* that the *materia medica*, to be of any service, must reveal the precise qualities of medicines, and must be a work from which all mere assumption and empty speculation about the reputed qualities of drugs are excluded, recording only the effects (symptoms and conditions) they produce in the human body. In the *Organon of Medicine* he taught that dynamically acting medicines extinguish diseases only in accordance with the similarity of their symptoms.

Here, then, we have the great principle laid down in few words, and as we profess to be his followers and proclaim to the world that we are homœopaths, our duty seems clear, especially as no other genius or originator has yet appeared to give us any principle for drug-selection equal to that expressed by our well-known formula—*similia similibus curentur*. Let us prove properly, as Hahnemann did, every unproven drug, before we apply it as a medicine to the sick. Let us give hearty support to our colleges, and send students to them, especially to such as devote sufficient time to every fundamental study, but who take the time necessary to ground scholars thoroughly in the principles of homœopathy. Let us increase and make more useful our hospitals by every means in our power; but as these are erected, endowed and supported by the people because they are *homœopathic* hospitals, insist that, in all cases requiring internal medication, the medicines shall be selected and continued in accordance with the principles of our school.

ADDRESS OF HON. JAMES M. BECK, AT THE FIFTY-SIXTH ANNUAL
COMMENCEMENT OF THE HAHNEMANN MEDICAL COLLEGE,
ACADEMY OF MUSIC, PHILADELPHIA, MAY 21, 1904.

I APPRECIATE more than I can express in words the distinguished compliment of being invited to address the members of the graduating class at this, the Fifty-Sixth Annual Commencement of the Hahnemann Medical College of Philadelphia. I wish sincerely that it were within my power to justify so great an honor. My professional engagements have been such in the past fortnight as to preclude such preparation as the character of the occasion and the dignity of the audience justify. Indeed, I would not have accepted the invitation had I not been assured in advance that this college was so loyal to the principle of homœopathy that they even wish commencement addresses to be administered in homœopathic doses. My address, therefore, will, I fear, be like the "frisky prologue" with which Artemus Ward commenced his lectures in England. He described it as being ten minutes long, an equal amount in width, but "depth" not mentioned. Even were my time and your patience equally unlimited, I should feel the painful embarrassment of my ignorance in addressing this learned body. Of the science of medicine, I have as scant knowledge as the average layman. I am almost as ignorant as a Tammany "heeler," who once had occasion to visit the city of Washington during the administration of the lamented McKinley, and at the time when Senator Hanna was politically potential. He happened to stroll into Scott Circle, where stands a noble statue of the founder of your school of medicine, containing the simple inscription "Hahnemann." He looked at it wistfully for a while, and then with a consciousness of a few Democrats who were getting positions under a Republican administration, he said, "It is a great thing to be a citizen of Ohio, for they erect a statue to you if you are only a Hanna man."

We are assembled within this historic building to congratulate these young disciples of Æsculapius upon the successful completion of their studies, and to wish them a hearty God-speed as they enter upon the practice of a very ancient and

honorable profession. In these felicitations, I heartily join. While not a member of your learned profession, I yet can form some idea as to the ordeal that awaits any young man who in this age of over-crowded professions, challenges all comers in the keen competition. I shall not suggest the common-place encouragement that there is always room at the top, for the facilities of education are to-day so widely distributed and so easily obtainable, that there is not only little room at the top, but, indeed, there is little room upon any rung of that infinite ladder; but this truth is clear, that, as generations come and go, there is and there has always been a reasonable opportunity for any man who has character, capacity and energy, and who can afford to wait. To some the opportunity comes quickly, to others all too slowly, but of that opportunity it can be said, as Hamlet said of death, "If it be not now, then it is to come. If it be not to come, then it is now. If it be not now, yet it will come. The readiness is all." Let me add jocosely that if any of you have a long wait for patients and are obliged to say with Mariana in the Moated Grange, "He cometh not, she said," do not despair but try your learning on pigs, for it has been well said that pigs are about the only living beings who can be killed first and cured afterwards.

I shall not dwell upon the nobility of the life work which you have chosen. The father of medicine felt himself equal to a king, and the Spiritual Leader of our race gave many hours of his brief ministry on earth to the healing of the sick.

You are to be congratulated that you are living in an age in which your profession, in common with every other department of human activity, has made extraordinary advances. In the nineteenth century, more than in any five preceding centuries, the searching mind of man has discovered the secrets of nature, and subjugated its potent forces to his imperious will, and in the profession of medicine these advances have made marvelous and revolutionary changes. Apart from the science of curative medicine, wonderful discoveries have been made in the art of surgery and in the science of preventive medicine that need yield but little in importance to the great discoveries in other departments of science. The possibilities of future progress are also illimitable. Unlike Alexander, the student of medicine reaches no margin of the sea to bar his further

progress. With him there are ever boundless worlds to conquer. Old theories have become obsolete, and, with such wonderful discoveries, as that of radium, there stretches before the ambitious student a vista of almost indefinite possibilities.

The very splendor of these possibilities constrains me to give one word of caution and advice. However extensive the scope of your profession, do not permit your minds to be exclusively bounded by it. Great as it is, it must not be the "be all and end all" of your intellectual lives. I mention this because your profession has an increasing tendency to detach itself from the rest of the world and to make intellectual recluses of its votaries. The learned faculty of medicine is almost a monastic order. While other departments of knowledge show an increasing tendency towards consolidation, the tendency of yours is to split into schools of medicine and into factions or sections of those schools.

Indeed, specialization is breaking up the unity of your science into an ever-increasing number of departments, with the result that the layman, who seeks to have an inquest held over his own ruined health, must now go before a very Coroner's jury of doctors. Even the individual doctor has a tendency to become a kind of civic hermit and to detach himself from the great body of his fellow-men. He seeks to build up a clientele and to live in it, as in a little world. When successful, you seek him in vain in other avenues of social life or public usefulness. In general literature he takes a languid interest. In public affairs, practically none. To the refinement of art, the teachings of science beyond the boundaries of his profession, to public affairs, he is strangely indifferent. Like Gallio, he "cares for none of these things." He even loses touch with his brethren of the medical faculty, and rarely attends the sessions of the medical societies or the anniversaries of his college. He is wholly absorbed in a little coterie of human life, to which, with his curative powers, he is a kind of beneficent, but limited, providence. There are notable exceptions to this rule. I could instance Oliver Wendell Holmes and Dr. Weir Mitchell, who shine with equal brilliancy in literature as in medicine. The former has given us a picture of this type of mind in the "Poet and the Breakfast Table." He describes an eccentric looking individual, with broad shoulders, stooping

posture, very slender limbs with the bend of a grasshopper, wearing myopic glasses, and carrying with him a camphorated smell. It being the eve of a Presidential election, this myopic individual is asked: "How do you think the vote is likely to go to-morrow?" to which he replied: "It isn't to-morrow; it is next week." "What election?" said his inquirer, in surprise; "Why," said the scientist, "the election of the president of the entomological society. Great competition between the dipterists and lepidopterists." This scientist, like some doctors, I fear, hardly knew that a Presidential election was in progress. "Are you," said his inquirer, "an entomologist?" to which the latter replied, "Not so ambitious as that, sir. I should like to put my eyes on the individual entitled to that name. I am often spoken of as a coleopterist, but I have not even the right to so comprehensive a name. The genus *scarabæus* is what I have chiefly confined myself to. Beetles are a sufficient study for any human life, and if I can prove myself worthy of the name of *scarabæist*, I shall die content."

It is impossible to withhold a certain admiration for these men of microscopic mind, who can shut from their mental vision everything except a beetle, and who can fill their minds by profound study with a special field of knowledge. And yet I believe that that man is both wiser, happier and more useful who follows the maxim of Lord Brougham, who said, "Try to know everything of something and something of everything." As Sir John Herschell said: "It can hardly be impressed forcibly enough on the attention of the student of nature to know that there is scarcely any natural phenomena which can be fully and completely explained in all its circumstances without a union of several, and perhaps all, the sciences."

Gentlemen of the graduating class, let me, therefore, earnestly advise you that in being doctors not to forget that you are also men and citizens. I appreciate the engrossing nature of your future work, and I freely admit that the faculty of medicine, above all others, can claim special exemptions by reason thereof. The supreme issues of life and death, like the movement of the tides, wait for no man. The faithful doctor can give but little time to outside interests if he is loyal to his work, for he combats disease and death, tireless enemies, who will not stay upon his pleasure, or postpone their insidious workings to await his

convenience. The doctor may not regulate his movements either by the timepiece or the calendar. He sounds the gamut of life from the first wail of the newborn to the death-rattle of the dying. Moreover, his mistakes are often incurable. In the immortal trial scene in *Pickwick Papers*, you will remember how one of the jurors, being an apothecary, sought to be excused from jury duty, and the irritable judge declined to excuse him and he was sworn, to which he replied, "Very well, my lord. I have left nobody but an errand boy in my shop. He is a very nice boy, my lord, but he is under the impression that Epsom salts means the same as oxalic acid, and syrup of senna the same as laudanum. That is all, my lord."

What is true of the apothecary is, of course, doubly true of the doctor. From many civic duties he must, in the nature of the case, be exempt, and what I have called the monasticism of his profession lies, I confess, to a considerable extent in its very nature. But the doctor owes to himself the duty of so cultivating his mind that he be not "cribbed, cabined and confined" within his phials and surgical instruments. He not only owes it to himself, but to his country, to take an intelligent interest in the affairs of the State, even though the exacting nature of his duties forbids him to take any active part in political life. We live in a government of public opinion, and in the last analysis its success must depend upon an educated public opinion. The doctor must not be behind the lawyer, the educator and the minister in contributing to that body of public opinion, by which men and public measures are finally judged.

If the doctor will be but mindful of his duty as a citizen and as a man, he can within the limits of his professional work render inestimable service beyond the mere curative work of medicine. He can imitate the Great Healer in curing not only the body, but that which is beyond his scalpel and dissecting knife, the souls of his fellow-men.

Even more than the ministry, the doctor and the lawyer, however, are to-day brought into close relation with the very souls of men and women, and while nothing would be more superzealous or tactless than for them to use their professional relationship to preach dogma or creed to their fellow-men, yet they have frequent opportunities to influence lives either for better or for worse. This is especially true of the physician,

whose office is in many respects a confessional, and who therefore has an unequalled opportunity to influence men for good or evil.

I believe that the complacent attitude of men towards moral dereliction is one of the evils of the time. Thus the exaggerated estimate, which many physicians place upon the physical nature of man, causes their patients to have a lessened sense of moral responsibility. Doctors and occasionally humanitarian philosophers are constantly guilty of the mawkish sentimentality that all wrongdoing is but the result of some physical infirmity, and that men's lapses are to be looked upon "more in sorrow than in anger." Unquestionably environment, heredity, or acquired disease do play an important part in the lives of a certain class of criminals, but there is no more dangerous and mischievous doctrine than that advocated by the Lombroso school of scientists, who hold that all crime is simply physical infirmity and that moral evil should be studied with the abstract scientific curiosity of physical disease. This exaggerated estimate of the physical basis of evil is destructive of the idea of moral responsibility.

Never by a shrug of the shoulders, or other species of good-natured complacency, give any patient of yours a lessened sense of his or her moral responsibility, and if the opportunity comes to you, as it unquestionably will, to extend an outstretched hand to some human being, who is undergoing moral shipwreck, in God's name extend it!

I commend to you as an illustration of what I mean as to your duty, that wonderful scene in Hamlet where the young Prince goes to the bed chamber of his mother and rouses her moribund conscience to a quickened life. Like Hamlet, it may often be your opportunity to step between some human being "and his fighting soul." Lift him up! Do not thrust him down. The descent to Avernus is easy enough without your aid.

It would be most ungracious in me if I concluded without making some acknowledgment of the great and unselfish service, which members of your profession have rendered to the government. The instances are not few where physicians, forsaking the opportunity for lucrative practice, have set an example of public zeal by entering the service of the State, and

by giving to it not merely their time and energies, but offering even the supreme sacrifice of their lives. Their lofty courage, self-sacrificing spirit and valuable achievements are well illustrated by the work in recent years of a commission of army medical officers, who, after our temporary acquisition of Cuba, sought to study the causes of yellow fever. For one hundred and fifty years this dreadful pestilence had existed without intermission in the tropics, and at times had visited our own country with a more destructive result than an invading army.

In June, 1900, this commission of medical officers of the army organized to combat this pestilence. By a remarkable series of experiments it proved that yellow fever, instead of being communicated by contact with the patient or his clothing, was transmitted by the infected bite of a special kind of mosquito. To prove the truth of this theory, several of the doctors voluntarily subjected themselves to infection, and one, Dr. Lazear, died a martyr to the cause of science and humanity. The theory once established, the eradication of the disease was speedily accomplished by the destruction of the insect, and in September, 1901, the last local case of yellow fever appeared in the city of Havana. Well did Secretary Root in his Annual Report to the President say: "The brilliant character of this scientific achievement, its inestimable value to mankind, the saving of thousands of lives and the deliverance of the Atlantic sea coast from constant apprehension demands special recognition from the government of the United States."

Gentlemen of the graduating class, it may remain for one of you, by a lifetime of work, to solve the hitherto insoluble riddle of cancer, that mysterious Sphinx of disease which devours all its victims, even as Dr. Reed and his brave associates have solved the mystery of yellow fever. "Peace hath her victories no less renowned than war," and I hold before you at this the beginning of your professional life the splendid possibility of some achievement, which will carry your name to the grateful remembrance of the remotest ages.

Perhaps I do ill in holding before you a possibility which, in the nature of the case, can fall only to the lot of the few in each century. If one serves his day and generation well, it matters not whether his success captures the imagination of the world or whether it shares the common fate of oblivion.

As you leave your alma mater and enter upon the busy life of the world, let your spirit be that of the Scotch poet, when he said :

“ . . . go forth 'mong men, not mailed in scorn but in the
armor of a pure intent,
Great duties are before me and great songs, and whether
crowned or crownless when I fall
It matters not, so as God's work is done.”

LATE EFFECTS OF TYPHOID FEVER ON THE HEART AND VESSELS.—(Thayer).—Upon examination of one hundred and eighty-three cases the following is summarized :

1. The average systolic blood-pressure in these old typhoids was appreciably higher than in control observations on healthy individuals.
2. The higher average of blood-pressure was constant in every disease.
3. In many instances among the old typhoids the blood-pressure exceeded appreciably the limits of what is usually regarded as normal.
4. The radial arteries in old typhoids were palpable in a proportion nearly three times as great as that found in control observations upon supposedly healthy individuals who had never had the disease.
5. The average size of the heart was greater among old typhoids than in the same cases at the time of admission to hospital. The difference held good also when the cases were classed according to age by decades.
6. Cardiac murmurs were heard with considerable greater frequency among old typhoids and in the same cases during the attacks.
7. In eight cases where, on discharge from the hospital, the heart was considered normal, subsequent examination revealed hypertrophy with mitral insufficiency. One case showed a possible mitral stenosis; one an aortic insufficiency; one a striking arterio sclerosis with increased tension.
8. In one case an aortic diastolic murmur was present four months after discharge, but had disappeared five months later.
9. Those patients whose pulse during the disease was remarkable, rapid or irregular, showed in general, on later examination, a blood-pressure above the common average for the old typhoids. In other respects, however, this condition differed but little from the general run of cases.
10. Those cases in which a systolic murmur at apex was observed during the attack showed later an increase in the blood-pressure and in the size of the heart, as compared with the mean of the observation made upon the same case on admission and with general average for old typhoids. Nearly one-quarter of those cases in which, during the attack, systolic murmurs (apical) were detected showed on later examination evidence of organic heart disease. Indeed the majority of all the cases of organic cardiac disease among one hundred and eighty-three old typhoids came from the small group of thirty-one cases.—*American Journal of the Medical Sciences*, March, 1904.

EDITORIAL.

ARE WE TO HAVE A UNITED MEDICAL PROFESSION?

IN the little pamphlet with the above title, by Charles S. Mack, M.D., of Laporte, Indiana, we have an endeavor "by defining different cures, and by classifying practices, to make obvious the tenability of an attitude friendly toward both homœopathic and rational medicines, and thus to illumine a platform from which no man would be excluded because of his friendly attitude toward either."

It differs from other attempts made in the same direction in several respects; it does not assert that all cures are made homœopathically, and it seeks to distinguish between kinds of cure, not as to the final outcome, but as to the way this is brought about.

If there are different kinds of cure, one of which is peculiar to homœopathy, and governed by its law, then, in the new platform, homœopathy, as a plank, would be a matter of opinion, and both believers and non-believers could together work in the field of rational medicine. In this latter lies the pivotal point of the whole argument.

He says the peculiarity of the particular cure, of which *similia similibus curentur* is the law, lies in the immediate (= direct, with no reference to time) effect of the medicine. The immediate effect of a homœopathic medicine is "a change from what is abnormal to what is normal (or approximately normal) in vital processes, with no drug-effect mediate to it. One cannot in rational practice attempt this cure, for in rational practice there must always be sought an immediate cure in itself knowable, as a change in vital processes is not; it is knowable only in its effects."

This is the keynote to the whole, and is reiterated time and again without, however, illustrating the statements as clearly as would be desirable in view of their rather unusual character.

The statement that the homœopathic remedy has an immediate (*i.e.*, direct) effect upon the vital processes is not proven, and the declaration that "these processes lie *per se* beyond the ken of inductive science, and that as a natural scientist one must remain in ignorance of them excepting as they are manifested in effects," throws the burden of attempted proof upon facts, *viz.*, the results of homœopathic treatment, and that these are susceptible of various interpretations we know only too well. At any rate, they only prove that homœopathic remedies effect a restoration to normal, or approximately normal, conditions, without indicating how they do this.

Taken as a statement of an hypothesis as to the manner in which homœopathic remedies act, it is as good as any and better than many which have preceded it. It demands, however, and finds here, an acceptance of the dynamic effects of drugs. The author says: "Only by reason of its properties as an immediate modifier of vital processes (*i.e.*, only by reason of its dynamic properties) can a drug be a homœopathic medicine. Homœopathy does not speak of drugs otherwise than as dynamic agents," and "I rather think that trituration affects a drug (as a dynamic agent) merely by subdividing particles, and thus putting them into a condition in which their dynamic properties are more effective." To what lengths in his belief in this dynamis the author is prepared to go, may be seen from the following quotation: "I question whether a medicine in inducing its dynamic effects is assimilated." He classes the dynamic properties of a drug with chemical affinities, and physical properties, and defines them as "those which render it an immediate modifier of the quality of vital processes." It will be seen that we are wandering in a circle, and that so far as any proof or corroboration of his contention is concerned, we are just where we started, and must be content to accept his hypothesis or not, according to our subjective views of its plausibility. He, involuntarily no doubt, forces us to the conclusion that *our* personal equation may be allowed scope, since he does not think that *natrum mur.*, *carbo veg.*, or *sil.*, are pathogenetic, and if not pathogenetic, they can under no circumstances be homœopathic, and this in spite of the numberless instances recorded of the immediate changes from what was abnormal to normal (or approximately normal) in

vital processes, following their administration and resulting in cure.

Ingenious as is the hypothesis and the consequent liberal platform upon which may stand all followers of scientific medicine, irrespective of their belief or disbelief in homœopathy, we cannot accept, in the material world, the idea of a dynamis without physical basis; this not in the sense merely of matter to be made use of, but with the dynamis as resultant from the arrangement of material molecules. The whole trend of the latest scientific investigations is in the direction of the divisibility of matter, to an extent far beyond what was formerly dreamed of. Matter, in some condition or other, is found wherever energy is manifested, and we are afraid we cannot accept the theory that there is *no* mediate drug-effect in the homœopathic cures, but only that it is infinitesimally small, under ordinary circumstances.

We, too, look forward to a time when there shall be a united medical profession, but on the broadest platform of absolute universal personal liberty of research and action, in the field of medical science. We need no justification for demanding the liberty we are willing to accord to others.

With his premises laid down, of course the author has plain sailing, and, where they are accepted, his platform will be, and even where they are not his pamphlet will do good. It is moderate in tone, and although the frequent use of the word "transcend," when comparing the homœopathic cure with that of the rational school, may grate on the feelings of our colleagues of the latter, there is nothing in the book at which they could reasonably take offense, and much by which they could be instructed. They would find much of interest to them in Chapter IV., which contains answers to certain questions from students of a non-homœopathic college, given by the author in an address in the University of Michigan.

As it stands, Chapter III. is not an altogether convincing illustration of the universality of the law of similars; it could perhaps be made so by further elaboration.

We have confined ourselves to a consideration of the line of thought suggested by the title of the pamphlet, but there are many suggestive ideas to be found in the course of the author's argument. Although we cannot think that Dr. Mack has

solved the question of the homœopathic cure, he has placed it in a somewhat different light from his predecessors, and by that much has brought it nearer solution, while by his "defining cures and classifying practices" he has helped prepare one way for a United Medical Profession.

THE RELATION OF THE PATHOLOGIST TO THE PRACTITIONER OF MEDICINE.

THE corner-stone of modern medicine is the science of pathology. A knowledge of the location, character and extent of functional disturbances, or of tissue changes produced by a disease, is a prerequisite to any rational attempt to diagnose, prevent, palliate or cure the disease. It is unnecessary to enumerate the numerous and important contributions which pathologists have made to advance the art of medicine. It was mainly through their efforts that medicine threw off the mysticism of the middle ages and stands to-day on a scientific basis. While it is easy to observe the assistance pathology has been to medicine in general, yet the value of the pathologist to the individual practitioner is often overlooked or underestimated. The pathologist is a direct aid to the practitioner in several ways: First, the opinion of a pathologist is frequently necessary, in order to arrive at a correct diagnosis. This may be true, for example, in typhoid fever, tuberculosis, the early stages of chronic Bright's disease, and in the differentiation of benign and malignant tumors. In many of these cases the diagnosis is of more immediate importance than the treatment; the latter affecting only one individual, while the former may affect several individuals. Secondly, the opinion of a pathologist is often a direct guide to the selection of proper treatment. The subjective symptoms as given by the patient, and the objective signs as discovered by the ordinary methods of physical examination, do not in every case constitute the totality of the symptoms. The abnormal presence of lactic acid in the gastric contents, or of pus in the pelvis of the kidney, are fully as important symptoms from a therapeutic standpoint as is the presence of blood in the sputum of a patient suffering with bronchitis. Two cases presenting similar clinical symptoms of irregular chills, and fever

sweats, but in one of which the malarial parasites could be demonstrated in the blood, and in the other the tubercle bacilli could be found in the urine, would manifestly demand very different management. Such distinctions are often impossible, even by the most experienced observers, without the aid of a laboratory examination. Thirdly, the opinion of a pathologist is often necessary before the physician can give an intelligent prognosis. Perhaps nothing so influences the laity's opinion of a physician as his ability or inability to correctly prognosticate the course of a disease. It is difficult for the public, or even for medical investigators, to determine in a given case how much the credit for a cure is due to the physician and how much to the *vis medicatrix naturæ*. Time, however, makes manifest to all the correctness or incorrectness of a prognosis. A physician's prognosis may completely alter the business, as well as the social and family arrangements of the patient. So far reaching is this in its effects, that the physician who does not utilize every available means of arriving at a correct prognosis does an injustice to his patient, to the patient's family and to himself. Fourthly, the opinion of a pathologist by corroborating the diagnosis and prognosis strengthens the confidence of the patient and of the family in the physician. This is of importance to the practitioner, not only from a personal standpoint, but also because it enables him to more effectually treat the patient.

There are a number of physicians who realize the practical value, to themselves and to their patients, of laboratory examinations, yet who appear to think the pathologist needs no remuneration for his services. The average pathologist is an enthusiast over his work, and is not inclined to be exacting in regard to his fees. Taking advantage of these facts, many physicians will send to a pathologist a specimen of sputum, urine or what not, stating that it is a remarkable case, etc. The pathologist is supposed to obtain sufficient pleasure from the examination of this "rare specimen" to recompense him for his work. The physician, however, profiting by the knowledge thus obtained, continues to treat the case and to receive pecuniary compensation for his services. These advocates of the maxim "*labor ipse voluptas*" would scarcely desire to be dealt with according to their own rule.

The pathologist, like the laborer, is worthy of his hire. His work requires a high degree of skill, abundant patience and wide experience. The instruments required are both numerous and expensive. If these facts are explained to patients, they are, as a rule, willing to pay a reasonable sum for pathological examinations when such are deemed necessary by the physician. The knowledge to be obtained by modern methods of laboratory examination is constantly increasing, and a practitioner should avail himself of them whenever the diagnosis of a case is obscure. When employing the services of a pathologist for such a purpose, justice demands that the physician should see that the pathologist receives a fair pecuniary compensation for his services.

A MINISTERIAL INSURANCE COMPANY AND HOMŒOPATHIC PHYSICIANS.

WE have received a slip attached to the insurance papers of a certain co-operative insurance association conducted for the benefit of Presbyterian ministers. The party desiring to be insured is instructed to take the certificate to "any regularly graduated physicians of the old school." He is also warned that most insurance companies pay a higher price for such examinations than does the one in question, and that the applicant will in all probability find physicians who will endeavor for purely mercenary reasons to switch the applicant's patronage to one of the companies which will pay more for the service. Surely the clerical gentleman desiring to be insured is betwixt the devil and the deep blue sea. Should he call upon a homœopathic physician to make the examination, he finds that the examination is worthless; should he consult one of the old school, he is in great danger of encountering a knave. We have wondered if the medical officers of said co-operative insurance association are sufficiently well paid to make their honesty secure!

It is surprising that a Presbyterian Ministers' Fund conducted on such a basis can find any patrons. Many of its beneficiaries are doubtless on the free list of homœopathic physicians, and should in all honesty refuse to countenance such bigotry

by having nothing whatever to do with the company. While those who patronize old school physicians and receive favors from them should likewise uphold the honor of their benefactors.

THE AMERICAN INSTITUTE MEETING.

WE print in our news pages this month the circular of President Sutherland. The programme of the meeting has already been mailed to the entire homœopathic profession, and attests that those who attend the Niagara Falls meeting will be amply repaid for their time and trouble. Large as is the membership of the American Institute of Homœopathy, it should be made still larger, and this can be done if each member will but do his little by bringing in at least one member.

Several journals have openly made accusations that the Institute was shifted to Niagara Falls this year through the instigation of a patent medicine or patent food company, which desired to make use of the Institute for its advertising purposes. Personally, we have no faith whatever in its truth. Nevertheless the charges have appeared in print. The honor of the national associations demands that this matter should be investigated. Those who have printed the accusations should bring the matter before the proper body, "The Senate of Seniors," who will find a suitable remedy and dispense justice.

THE TREATMENT OF EPILEPSY.—In the *Eclectic Medical Journal*, for May, Dr. Lee Strouse of Covington, Kentucky, claims to have had unusual success in the treatment of epilepsy with gelsemium, veratrum and ammonium bromide. The writer says that he has had an experience, including some very serious cases, and that he has cured his cases by a combination of the remedies mentioned. Thus he combines the eclectic tinctures of gelsemium and veratrum, of each 1 drachm, with bromide of ammonium 2 drachms, and makes a 4-ounce mixture in water. One teaspoonful is administered four times daily. Occasionally, he seems to have given one-half this quantity at each dose. In addition he moves the bowels freely with podophyllin and orders a light diet with much outdoor exercise. Coffee and tea are prohibited, and meat is allowed very sparingly. The only thing that can be said about this treatment is that this observer reports cures.

GLEANINGS.

DIVERTICULA OF THE ŒSOPHAGUS, WITH THE REPORT OF A CASE.—Halstead, Chicago, in a classical paper gives the report of a case of pulsion diverticulum at the pharyngo-oesophageal junction successfully operated upon, and extensively reviews the literature of the subject. He accepts Rokitauský's classification into the traction diverticula, and the pulsion or pressure diverticula. Little importance is ascribed to the traction diverticula. They are generally the result of traction made by the shrinkage of scar tissue that is attached to the œsophagus. In most cases they seem to cause no symptoms during life by which they can be recognized, and are only rarely found post-mortem. They may, however, become a serious menace to life by perforation from the lodgment of a sharp forcing body within, or ulceration from pressure or retained food. Under these circumstances they lead to infection of the mediastinum, pleura, or pericardium, or to the production of a gangrenous pneumonia. In some cases they may be converted into pulsion diverticula by the pressure of arrested food and distension of the sac. To this group Ekmomides has given the name of traction-pulsion diverticula.

Pressure or pulsion diverticula always produce symptoms by which they may be recognized during life, and are of greater interest, first, because of the difficulty encountered in making a diagnosis, and, second, because the condition, if not relieved by surgical means, will ultimately destroy the life of the patient by starvation, or intercurrent diseases superinduced by its presence. For convenience of description they are classified into the following groups :

1. Those of the pharynx proper.
2. Those at the pharyngo-oesophageal junction, the border-line cases, or Grenz diverticula of Rosenthal.
3. Diverticula having their origin in the middle third of the œsophagus somewhere near the bifurcation of the trachea, and mostly just above the left bronchus. The epibronchial group of Leutgert.
4. The deep-seated diverticula, in which the origin is below the level of the left bronchus, with fundus a variable distance above, but usually near, the diaphragm. The epiphrenal diverticula.

Pharyngo-oesophageal pulsion diverticula are the most common, and the most important. They develop exclusively in the median line posteriorly, but as the sac grows larger they are dragged to one side, usually to the left. Most lateral pharyngeal diverticula are congenital, probably originating from the remains of the third and fourth bronchial clefts, the starting point being an incomplete internal bronchial fistula. Other causes are trauma, as by a fish bone, causing a weakening or rupture of the muscular wall of the pharynx, or excessive pressure within the pharynx from long continued blowing on wind instruments, or shouting, in cases where the pharyngeal wall is weakened from previous disease.

For diagnostic purposes the author recommends skiagraphy, first filling the

sac with bismuth mixture, or introducing a metallic sound or rubber tube filled with shot. In diverticula high up in the œsophagus, or of the pharynx, the use of the œsophagoscope may prove of value. The most reliable procedure is the proper use of the sound. Rumpel has made use of two stomach-tubes to differentiate between diverticulum and dilatation. Jung has improved on this method by adding a third smaller tube introduced through the first or stomach-tube. In non-malignant stricture of the œsophagus, if a sound be passed into the strictured zone, no mobility of the sound is possible; while in a diverticulum, if the sound be passed into the sac, although it cannot be pushed farther down, a considerable degree of lateral mobility is possible.

The non-operative treatment consists of the persistent use of the sound, and the stomach-tube, as recommended by Berkhaus, Bruns and Schede. Waldenberg and Schede have employed a faradic current applied to the œsophagus near the orifice of the sac and to the diverticular wall, with diminution of the sac. A fatal use of the sound occurred in the practice of Bruns. The operative treatment consists of gastrostomy as first practiced by Shönborn in the deep-seated diverticula, and excision of the sac as first suggested by Klüge, and practiced by Nicoladoni, with suture of the œsophageal rent. The sac has been removed both by cutting and by thermo-cautery, but the latter is not recommended because of the necrosis following its use.

The author in his case made an incision on the left side from the angle of the jaw to the sterno-clavicular articulation anterior to the sterno-mastoid muscle. The superior thyroid veins and artery were divided between ligatures, and by blunt dissection the œsophagus was reached. The diverticulum was located by passing a bougie into it through the mouth and lifting it from its bed. The neck of the sac was a trifle below the lower border of the cricoid cartilage. A purse-string suture was passed around the neck of the sac, the sound withdrawn, the sac invaginated into the lumen of the œsophagus, and the suture tied. Three sutures of catgut were then passed through the neck of the inverted sac. Over these, the longitudinal muscular layer of the œsophagus was united by interrupted catgut sutures. A third layer transverse to these brought down the inferior constrictor of the pharynx, covering the first sutures. No difficulty was experienced in passing a full-sized bougie into the stomach. The patient did well, although 76 years of age, and since the operation has not experienced any difficulty in swallowing food of any kind.—*Annals of Surgery*, February, 1904.

Gustave A. Van Lennep, M.D.

GONORRHEAL INFLAMMATIONS OF JOINTS.—Halstead, Chicago, calls attention to this frequent complication of gonorrhœa, and divides it clinically into these groups:

1. Acute serous synovitis.
2. Acute sero-purulent synovitis (mixed infection).
3. Purulent synovitis (usually mixed staphylococcus and gonorrhœal infection).
4. Sero-fibrinous or the sero-membranous, of Ollier, where the fluid is present in small amounts, or has the consistency of coagulated serum or is gelatinous. This is often associated with a proliferative synovitis and defects in cartilage from prolonged inflammation. This form may be from the beginning subacute and not associated with severe pain, as is common in the other

varieties. Not infrequently a considerable degree of peri-articular inflammation is coincident.

5. The peri-articular, ankylosing inflammation, with practically no fluid in the joint cavity. In this group we have a low grade of inflammation, closely simulating arthritis deformans, and usually associated with considerable pain, marked muscular atrophy, and pronounced anæmia. The temperature may be but slightly above the normal at any time. This, with the muscular atrophy, the anæmia, and the spindle-shaped joint, may present a picture that simulates tuberculosis.

The author states that the gonococcus is found in the synovial fluid, but says that in the fluid aspirated from some of these joints the gonococcus may not be present. When present it is usually dead, and no longer capable of producing a growth in a culture medium. It is most frequently found, however, in the leucocytes or in the endothelial cells of the joint capsule. The diagnosis is often difficult to make, in the acute serous cases it being most frequently mistaken for acute articular rheumatism. Knowledge of urethral, vaginal or uterine infection with the gonococcus is, however, of great help, and should be inquired into in all cases of acute arthritis, particularly when it is mono-articular, and affects the knee and ankle in the male, and the elbow and wrist in the female.

The author has obtained good results from the salicylates in the acute serous variety. He also recommends aspiration of the joint capsule and the introduction of a 1-per-cent. solution of protargol. This is followed by the application of a plaster-of-Paris cast for a week, and, later, massage and passive motion. Where the diagnostic puncture demonstrates the presence of a mixed infection, resort should be had to arthrotomy, and the joint well irrigated and drained. In the chronic ankylosing form, where the capsule is not seriously affected, massage, superheated air and passive and active motion will give better results than operative treatment.—*International Journal of Surgery*, March, 1904.

Gustave A. Van Lennep, M.D.

SURGERY OF TUMORS OF THE BRAIN.—(Frazier.)—A *resume* will include:

1. All measures recognized as prophylactic of shock should be observed stringently. In these we have a most effected means of reducing the mortality. The most important are (a) the avoidance of prolonged operation; (b) the prevention of excessive hæmorrhage; and (c) the avoidance of unnecessarily rough manipulation of brain substance.

2. A given area of the brain can be exposed with the minimum degree of traumatism and great economy of time by the electric engine.

3. Temporary closure of the carotids in operations on the brain is inefficient and not attended with danger. It should be reserved for extreme cases and practiced on one side only.

4. Observations should be made on the blood-pressure immediately before and at frequent intervals during operation. Object of the same twofold, (a) as a most reliable index of the patient's condition, (b) as the only exact method of determining whether the operation should or should not be carried out in two stages.

5. Two-stage operation is indicated when there has been a decided fall in the blood-pressure after the relief of intracranial pressure, such as follows reflection of the Wagner flap and dura.

6. Lumbar puncture as a means of relieving pressure is a temporary, not to say dangerous, procedure.

7. Bulging of the brain is one of the most embarrassing features of brain operation. A distinction may be made between that which occurs immediately after reflecting the dura, "initial bulging," and that which follows as a result of subsequent exploratory manipulations, "consecutive bulging."

8. "Initial" bulging is due to increased tension exerted by a tumor. It is not always present, it is often not excessive and is not likely to be followed by "consecutive bulging."

9. "Consecutive" bulging is due to cerebral œdema set up in normal brain tissue by trauma inflicted in exploratory manipulation. "Consecutive" bulging far exceeds in magnitude initial bulging and suggests the absence of a tumor of considerable size at the seat of operation.

10. In order to avoid this consecutive bulging, which is a most embarrassing feature of these operations, exploration should be carried on in the most expeditious manner.

11. When the edges of the dural wound cannot be approximated without undue tension or without great laceration of the brain substance, the gap should be closed by a graft taken from the pericranium, providing the tumor has not been found and there is reason to question the accuracy of the diagnosis.

12. When there is every assurance of a tumor being present, but it proves to be inoperable or was imperfectly localized, no attempt should be made to close the dura, as in so doing the best possible palliative effects of the operation would be counteracted.

13. Palliative operations should be regarded not merely as operations of propriety, but should be considered imperative whenever the tumor cannot be found or cannot be removed.

14. A statistical study of the result of the last five years is encouraging. The mortality, both immediate and subsequent, has been reduced materially. Recurrence after operations for malignant growths of brain is no greater after operations for malignant growths in other structures.

The prognosis in cases of benign tumors and cysts, also in well encapsulated sarcomata, is much better than in malignant ones.—*The American Journal of the Medical Sciences*, February, 1904.

William F. Baker, A.M., M.D.

NERVOUSNESS IN CITY CHILDREN.—(Editorial.)—One of the most pronounced features of medical practice in large cities, and especially among children of the better class, is the increasing frequency of the occurrence of nervous conditions of various kinds in growing children. These conditions not only produce symptoms in themselves, but lead to the exaggeration of many symptoms of other ailments, and frequently make diagnoses more difficult than they would otherwise be, because of the atypical symptoms; for instance, even a slight fever in nervous children will give rise to a severe chill or to mental symptoms bordering on delirium and to functional disturbances, especially in the gastro-enteric tract, the kidneys, and the skin, which are unwarrantably severe. As a matter of fact, the height of the fever itself depends not a little on the child's nervous disposition and the resistive vitality that enables it to stand thermic conditions. Small disturbances may produce a fever that may last several days. It is very evident that this is due to unnatural conditions

in child life. If there is anything characteristic of child life it is restlessness, so that normally only a small portion of their waking period is passed at rest. It is evident that this cannot be fulfilled in city life. Children cannot be allowed to run about the house. In apartments they must be kept quiet, or their noise will be returned in severe complaints on the parts of their neighbors. Very often the only exercise granted them is a walk with nurse, who is instructed not to let children associate with others for fear of contagion. There is no doubt that much of the so-called nervousness is directly the result of our "overcrowding" of studies in the public schools, which assumes that education is proportional to the amount of information which can be crammed into the children. In order to do this competitive examinations are held and results contrasted, so that a sensitive child is greatly annoyed and actually worried. The child's vital force during its developmental period is too precious to be wasted in this manner. Physicians are the only ones who seem to properly realize this, and their's ought to be dissenting voices. (*Were the children's nervous-system as closely guarded as their bodily health is protected from contagious diseases, education would receive its greatest boon.*)

Nervous disorders are easily prevented and harder cured.—*Archives of Pediatrics*, January, 1904.

William F. Baker, A.M., M.D.

THE CLINICAL SIGNIFICANCE OF PAIN IN THE EPIGASTRIUM.—(Murdock.)—The writer alleges as the causes of pain, hyperacidity, hypersecretion, hyperæsthesia of the stomach, nervous gastralgia, biliary colic, certain affections of the spinal cord, cancer, gastric ulcer, pancreatitis, some forms of appendicitis, and Addison's disease. The pain of hyperacidity comes but one or two hours after a meal, and ceases at the end of the digestive period. It may be temporarily removed by the administration of alkalies or the ingestion of food. The pain of periodic hypersecretion comes on in the midst of perfect health. Besides pain there is extreme thirst and vomiting of large quantities of hot, sour, gastric juice. In hyperæsthesia of the stomach the pain appears immediately after eating. In nervous gastralgia the pain is usually severe, and may be localized or diffuse. In biliary calculi the pain is paroxysmal and appears only at intervals, and has no relation to the taking of food. The attacks are sudden and usually followed by jaundice. In cancer the pain is usually the most constant of all symptoms. It does not depend upon the taking of food. In gastric ulcer the pain comes on in from ten to twenty minutes after the ingestion of food, and disappears with the completion of gastric digestion. There is often intense epigastric pain in Addison's disease. The weakness characteristic of the disease appears before the pain.—*Medical News*, March 19, 1904.

William F. Baker, A.M., M.D.

THE CHOICE OF A GENERAL ANÆSTHETIC IN OPHTHALMOLOGY.—The shorter an operation the more important, relatively, is the period during which anæsthesia is being established. Other things being equal, the anæsthetic giving rise to the least oozing would unquestionably be the best; the same may be said about vomiting, coughing, etc.

Nitrous Oxide.—One of the safest, is not wholly without danger to persons of impaired respiratory capacity or brittle vessels. Its chief objection is the amount of venous congestion that it causes.

Ether.—More than any other causes vomiting and coughing. Death from

ether is comparatively sudden and apparently accidental. It is out of the question if actual cautery is to be used, and if gas be burning in the room coughing will be induced.

Chloroform.—Is perhaps more likely to cause death by inhibiting the heart's action. In its favor may be mentioned the briefer anæsthesia, smaller quantity and less congestion.

Ethyl Bromide.—Is the more rapid and manageable of the general anæsthetics; in the present state of our knowledge it can hardly be regarded as less dangerous. It must be used drop by drop, more cautiously than chloroform. It is said to favor arterial bleeding, but in a considerable experience with it the author has never observed such unfavorable influence.

It certainly causes very much less venous oozing than does ether. Anæsthesia is produced within one minute, generally in thirty seconds; recovery is complete within one or two minutes after stopping its administration.

It is not attended with any relaxation of the muscular system. The rapid recovery may be a drawback, if not closely watched. It is unsuited in prolonged operations.

It is good for squint operations in young children, even for graduated tenotomy. A general anæsthetic must be used, if the eye is severely inflamed, for operations that open the eyeball; *e.g.*, glaucoma, acute traumatic cataract. Nitrous oxide and ethyl bromide are scarcely to be considered for such operations.—Edward Jackson, M.D., Denver, *Penn. Med. Jour.*

William Spencer, M.D.

THE ÆTIOLOGY AND THERAPY OF PUERPERAL FEVER.—Queisner says, although fifty years have elapsed since the epoch-making discovery of Semmelweis, and although epidemics of puerperal fever are now rare, we must acknowledge that an ideal condition has not yet been attained since the frequency of morbidity in the puerperium has not diminished as might be expected. Accidental illness cannot be excluded, and this explains the difference in the statistics of the several clinics. Although denied by some, yet there are numerous observations that obstipation may cause a rise of temperature to 101.3° F., which disappear after sufficient defecation. Influenza may produce the same effect, which, however, disappears after the usual treatment. Auto-infection has had many defenders, but the question is probably now disposed of by the recognition of the proposition that all infection comes from without. The infection, however, may be introduced into the genital tract by another person than the physician and the midwife, although it is not always possible to obtain the evidence. When this can be established with certainty, such cases should be published. The patient may infect herself by self-examination. Several cases are then related showing infection with gonorrhœa; infection on the tenth day by the nurse hunting for a piece of gauze thought to have slipped into the vagina while being washed; infection from a filthy receptacle used for defecation.

Puerperal fever appears in two forms: one in which there is acute sepsis causing death in a few days; another, wherein there is more prospect for recovery in which the lymph channels seem to retain the poison and a parametritis results, though infected thrombi may induce purulent inflammation in other organs. We do not know why in some cases the infection passes beyond the lymph tract and in other cases is detained there, nor whether a cer-

tain variety of cocci has this characteristic. Until this is determined we need not expect much result from serum therapy. The use of Marmorek's anti-streptococcus serum has been without results. The clinical diagnosis between the two forms may be determined within a few days. If the temperature cannot at all be affected by treatment the prognosis is very unfavorable; we are helpless in the treatment of this form. But it is otherwise where the morning temperature shows remissions.

The treatment used is as follows: The removal of infecting matter yet remaining within the uterus is accomplished, but without the use of the curette and by means of intrauterine douches. Which antiseptic shall be contained therein makes little difference; the temperature of the douche, however, should be high, about 104° F. In order to prevent further entrance of infection into the uterus, ergotin is daily administered hypodermically. Catharsis and diuresis are not advised. The least dangerous means is to favor elimination through the skin by means of daily baths followed by the hot pack. After sweating for two or three hours the patient is to be rubbed dry, placed in a warm bed and then receives one or two litres of normal salt solution per rectum. The same solution may also be administered subcutaneously, and will be followed by further sweating. Thirst may be relieved with alkaline waters, or with tea flavored with cognac. The author has not seen any particular benefit from treatment with alcoholics, as was advocated some years ago; good results, however, follow the use of porter, because of its effects upon the digestion. Nourishment is to be administered every two hours.—*Monatsschrift f. Geb. u. Gyn.*, xix., H. 1.

Theodore J. Gramm, M.D.

VOMITING OF PREGNANCY.—Oehlschläger, Danzig, believes this to be due to a continuous secretion of the fluids of the stomach, induced by reflex irritation of the nerves of the stomach. The evidence of this he thinks to see in the fact that the ejecta are usually very acid, so much so that the mucous membrane of the throat is affected, and free hydrochloric acid has been found in them. After many years of experience he has found an unfailing remedy in tr. strychni, 5 drops with 12 grains of sodium bicarbonate in solution, repeated every two or three hours.—*Centralbl. f. Gyn.*, 1904, No. 7.

Theodore J. Gramm, M.D.

GONORRHEA OF THE PARA-URETHRAL DUCTS IN WOMEN.—Pollak, Vienna, after pointing out the importance of the continued existence of specific cocci in the crypts and glands about the genitalia, in reference to subsequent acute exacerbations in chronic cases, has endeavored to determine the relative frequency of gonococci lurking in the para-urethral glands described by Skene. For this purpose he examined the secretion from these glands in 100 women who were being treated for other venereal diseases, but who had chronic or subacute gonorrhœa, and his results show that in 25 per cent. very numerous gonococci were present in the urethra. In 45 per cent. of all the cases gonococci could, without doubt, be demonstrated in the para-urethral tracts. This observation is important, since gonorrhœa was not the primary affection for which the patients were under treatment. Of these cases, 69 per cent. had but one gland affected, and 31 per cent. showed an invasion of both. There seemed to be no regularity in the participation of these ducts in the urethral infection, for in several cases the former were free from infec-

tion. On the other hand, in a case of bartholinitis, the urethral secretion could not be demonstrated to contain gonococci, while the secretion from the left duct of Skene contained numerous gonococci.—*Centralbl. f. Gyn.*, 1904, No. 9.

Theodore J. Gramm, M.D.

ANÆSTHESIA IN ABDOMINAL SURGERY.—An article by Dr. Gurney Williams, Philadelphia, having the above title, merits the thoughtful attention of all medical men, and not only of surgeons. Such an article should not be brushed aside with the comment that it contains nothing new, for it appears that certain reforms are only accomplished after frequent statement of their necessity and advantages. The following suggestions are noteworthy:

The surgeon who is in a hurry to get through with his six or eight cases compels the anæsthetist to half strangle all his patients and give to each four or five times more vapor than is necessary. Should any of us be compelled to take an anæsthetic, we would make a pretty keen choice as to who should administer it. The anæsthetist should be as well trained in his work as the surgeon is in his. The choice of the anæsthetic is of far less importance than the one selected to administer it. Spinal cocainization has been tried and found wanting. The anæsthetist should be one who approaches his patient in a manner to instil confidence. I would suggest that the family physician, friend or member of the family, who loudly announces the condition of the patient's pulse, or criticizes your method, should be invited to leave the room. The surgeon must not hurry his assistant, neither should he have patients placed under anæsthesia until he is prepared to make the incision. Unless absolutely necessary, never suggest an anæsthetic to be given to any one suffering from an acute cold. A septic patient usually requires very little vapor to produce and keep under surgical necrosis; this is especially true of puerperal sepsis. It appears that the flexing and holding of the thighs over the abdomen is conducive to shock. Heaving of the abdominal walls and efforts to swallow, seen early in the administration, indicate the attempt to vomit; in this case push the anæsthetic; when occurring late in the operation, the patient needs air; withdraw the vapor, gently push the jaw forward, and turn the head to one side. Struggling is the result of haste, and of all things is to be rigidly avoided, as it is the forerunner of about all accidents during chloroform and ether narcosis. In a section the average time to induce surgical narcosis should be about eight minutes, and the amount in all four or five ounces. It is interesting to know that some surgeons are offering prizes to the one who uses the least anæsthetic during their clinic.—*Amer. Jr. Obs.*, March, 1904.

Theodore J. Gramm, M.D.

MORBIDITY IN THE PUERPERIUM AFTER DELIVERY OF MACERATED FŒTUS.—Kotben has studied this subject as exemplified by seventy cases occurring during five years in the women's clinic at Giessen. According to some authors this condition is related to puerperal infection; while Späth and others believe that macerated fœtus has no ill-effects upon the puerperium, and have only seen such results when the fœtus died during labor after discharge of the amniotic fluid some hours or days previously with access of air, during which time putrid processes set in. If the fœtus died from disease of the ovum in healthy gravida and remained in the uterus for weeks with the membranes intact, no predisposing causes for puerperal diseases could be discovered.

From the seventy cases tabulated it appears that 27.1 per cent. had fever above 100.4° Fahr., which is about 10 per cent. more than the percentage of total morbidity from other causes. In thirty-six of the cases the cause of foetal death was ascribed to syphilis, constrictions by the cord, disturbances of the placental circulation, nephritis, influenza, and premature separation of the placenta. In thirty-four cases the cause of foetal death could not be determined.

After studying the histories of the nineteen (= 27.1 per cent.) mothers whose puerperium was febrile, he was not able to find the cause of the fever either in the condition causing foetal death, nor in an infection from without, nor in premature rupture of the membranes. He ascribes the fever to the absorption of toxins generated by saprophites which have gained access to the uterus. This would also explain the frequently appearing foetid lochia.—*Arch. f. Gyn.*, Bd. lxx., 723.

Theodore J. Gramm, M.D.

TUBERCULAR INTESTINAL STENOSIS.—In the introduction to his comprehensive article, which includes an account of one hundred and fifty cases, Nikoljski says, although this disease has long been known and much has been written on the subject, yet we possess no work which accurately describes it. The recognition of the disease is of importance for every practitioner, because its occurrence is not infrequent and the treatment gives the best results only in the first stages. The disease is most frequent in patients between the twentieth and fortieth year of age, and its duration is from a few months to twenty years. The lesions are usually multiple, and as a rule are located in the lower part of the ilium, though any part of the intestinal tract may be involved. They may be situated near together; thus Hofmeier found ten stenosed localities within a ten-metre section of the bowel. In about 46 per cent. of cases the disease is secondary to disease of the lungs.

Of the forms of stenosis the *hypertrophic* ranks first in frequency, the *cicatricial* next, and the *fibrous* variety occurs least often.

In the stricture due to cicatrices, the latter are very hard and extend mostly at right angles to the bowel lumen; scars and ulcers running parallel with the long diameter of the bowel are very rare. The ulceration usually extends from within outward and then the inner surface of the stricture is exceedingly hard and in ridges. No normal mucosa is visible, while the serosa is uninjured and only drawn inward by the scars. Occasionally, the ulcer is formed upon the serosa, and then the scar tissue drawing the intestinal wall together forms an elevation which presses into the lumen, and is covered by normal or only slightly changed mucous membrane.

The hypertrophic stricture is characterized by great thickening of the intestinal wall, which is still further increased by firm masses of fat, so that the impression of a neoplasm is conveyed. Sometimes this tubercular mass with its adhesions involves the entire intestines. The mucous membrane is much changed; there exist ulcers, tubercles and numerous polypoid proliferations, which especially produce the stenosis. Microscopically two conditions are observed: in one there is the cicatrizing ulcer or cicatrix; while in the other condition, with which we are especially interested, the bowel wall is greatly thickened, particularly in the muscular and submucous coats. In the latter coat there are considerable masses of scar tissue sometimes involving all layers of the bowel. The muscularis is hypertrophied, while the mucosa is materially thinned.

In the fibrous stricture the wall is thickened; there are also present tangled connective tissue fibres, but they never exhibit the appearance of true scar tissue. The mucous membrane is but slightly affected and there is not much hypertrophy of the muscular layer. The serosa shows infiltration and some round and spindle cells. In the submucosa are found tubercles surrounded by connective tissue.

Clinically the disease manifests itself in three forms: 1. In an acute and sudden onset; 2. Gradual, slowly progressing development; and 3. Latent cases. The latter cannot be diagnosed during life, and only exhibit symptoms of dyspepsia and diarrhoea. The onset in the acute cases is sudden, often occurring during the night, and consists of the usual symptoms of ileus. The patient may recover from this, but thereafter will periodically suffer from repeated attacks.

The more gradually advancing cases begin with disturbances of digestion and of the function of the bowels, together with attacks of pain in the abdomen. Later there are belching, nausea, vomiting, meteorism, emaciation and anæmia. With ameliorations and aggravations advancing to ileus the disease may drag along for many years, and ultimately reduce the patient to complete inanition and cachexia.

The author then proceeds to subject each symptom to an instructive and satisfying critical analysis. A symptom of great diagnostic importance, since it is sometimes the only one to attract attention, consists in the severe attacks of pain being terminated with loud rumbling in the abdomen, and is produced by the fluids and gas confined in the bowels under great pressure passing the stricture. Meteorism, usually present and greater the lower down the stricture is located, may be absent when the stenosis is situated high up; in such cases dilatation of the stomach may exist. On succussion of the abdomen a splashing sound may sometimes be produced; and palpation may reveal the presence of a tumor.

In differential diagnosis a slow development may suggest tuberculosis. Sarcoma is rarely found to cause stenosis; it rather produces dilatation from paralysis of the walls due to early involvement of the muscular coat. Carcinoma rarely affects the small intestines; it is more common in the large bowels, and particularly in the rectum. There are also no periods of improvement as in tuberculosis. The course is rapid and uninterrupted, and the cancerous tumor is sharply defined. Syphilitic stricture is rare in the small bowel. Typhoid ulcers rarely cause stricture. Dysenteric ulceration has often been charged with causing stenosis, but an examination of the numerous cases of dysentery, during and after the American rebellion, has shown that only exceptionally is stricture so produced.

The treatment is surgical. Resection is the preferable operation, but, because of frequently existing adhesions, will present great difficulties. The results of operation are not brilliant.—*Samml. kl. Vorträge*, No. 362.

Theodore J. Gramm, M.D.

RUPTURE OF THE UTERUS IN MANUAL SEPARATION OF THE PLACENTA.—Oswald, in an article on this subject, has collected a remarkable series of accidents attending the manual removal of the placenta, and discusses their medico-legal aspects, but no satisfactory abstract of the latter can be given here. The article, however, cannot fail to excite surprise at the occurrence of the accidents, and their frequency surely is astonishing. Some fifty cases are

recorded from medical literature the world over wherein the attendants upon women in delivery, including midwives in some instances, have passed the hand within the genital tract, and on its withdrawal have found within its grasp a coil of intestines which they proceeded to cut off. In other instances the hand has been passed into the abdominal cavity through a rent in the upper portion of the vaginal wall, and the movable mass, the uterus, found lying within reach of the introduced hand has been withdrawn and excised. The inverted uterus has several times been mistaken for a partially extruded placenta and torn from its attachments; and so also has the procident anterior vaginal wall been mistaken for the placenta and been torn away with the attached portions of the bladder.

Oswald says these occurrences are regarded by the majority of authors as inexcusable and culpable errors, and yet it is remarkable that judgment is less severe on the part of those who have most occupied themselves with the subject. Thus Walters, who has collected thirty-six cases, confesses that he is glad that no judgment was required of him concerning the case which he treated, for at that time his verdict would have been much more severe than later, after he had learned that "this accident may occur to the most experienced and skilful physician."

A number of the cases are to be characterized as gross carelessness; as when the intestine was torn loose from the mesentery, and when they protruded from the vulva and being unrecognized were cut off. It seems inconceivable that such an error could occur, and yet there are precedents. Thus Toulmouche, during expert testimony, conceded the possibility of confusing the foetal head with intestinal convolutions imprisoned in a vaginal laceration, and the court reached the conclusion that "an obstetrician, exhausted by moral and physical exertions, as induced by an unusually tedious and troublesome delivery, could, without lack of precaution, unskilfulness or carelessness on his part, have removed contracted intestinal convolutions which in some respects simulated the form of the foetal head;" and the expert remarks that the error may be appreciated on recalling how readily the human being persuades himself concerning that which he ardently desires.

In the cases where the entire uterus was removed, one is inclined to assume undoubted carelessness. And yet cases really appear to exist wherein the removal took place without the application of any force; such was the case with which Barnes and Braxton Hicks were concerned, wherein the not-inverted uterus, together with one ovary and a portion of the vagina, came away during mild traction upon the cord. In that case the two physicians named believed that no excessive force had been applied, but that the laceration had occurred previously, for a normal uterus cannot be removed in this manner. So also in a case reported by Schwartz, a horizontal tear six inches long was found in the upper part of the *cervix* after a midwife had made upward pressure upon the puerperal uterus. From such experiences Walters comes to the conclusion that in cases of removal of the non-inverted uterus it is almost impossible to assume that the separation did not occur during, or was favored by, spontaneous laceration during labor; and he adds that in such cases we should be very guarded in forming a judgment.

Forcible removal of the inverted uterus has so far found no defendants; examination through the abdomen is sufficient to establish the fact that the uterus is not situated in its normal place, so that the tumor presenting at the vulva must be assumed to be the uterus.

In perforation of the uterus or of the vaginal vault there must be conceded to exist the possibility of predisposing conditions of the tissues or a previously existing rupture. That latent rupture is a rare occurrence must not prevent its consideration in single cases. Several instances are on record wherein the laceration was only discovered during manual delivery of the placenta, and the placenta had to be removed from the abdominal cavity. When experiences like these happen to such authorities as Credé and Kalténbach, no one doubts the occurrence of spontaneous rupture. An extreme example of a symptomless termination of a case of rupture is reported by v. Franqué, where for three days post-partum the woman had severe hæmorrhage, but was otherwise normal; on the seventeenth day chill and fever; examination in narcosis on the twenty-first day disclosed the intestines entering the uterine cavity through a transverse laceration in the fundus. These were replaced and a severe hæmorrhage controlled by hot-water irrigation, whereupon the patient collapsed, on account of which nothing further was done. Eight days later the pulse and temperature were normal. The menses returned in three weeks, and in seven months the woman was pregnant again.

Oswald then goes on to consider the factors which increase the difficulties of manual removal of the placenta, and hence favor rupture. In general the correct technique is simple enough; one has only to follow the well-known directions to permit the cord to guide the hand to be introduced, while the other hand makes counter-pressure upon the fundus; the loosening of the placenta itself is to be effected, not with the finger-tips, but with the ulnar margin of the little finger. When, however, the cord has been torn off, the beginner may have difficulty in finding the uterine cavity, especially in pronounced ante flexion. Menge particularly points out that in the recently delivered and well contracted uterus the cervix hangs down as a wide relaxed tube, and the uterine muscle projects in ridges, and thus may lead to a confusing with the placenta. Spastic contraction of the internal os may augment the difficulties. Although this is rare and does not occur after proper conduction of the placental stage, it must still be taken into account. Two cases of Walters are in point. In both instances the internal os, whose margins were felt as a wall-like projection, at first only admitted one finger, and the separation had to be effected with two fingers introduced.

Even after the hand has reached the uterine cavity, several difficulties may arise. Usually manual separation of the placenta is undertaken on account of hæmorrhage, and then the placental margin is not difficult to find since it has become detached at one point, or there would be no hæmorrhage. But when there is no hæmorrhage the margin of the placenta may incline so gradually toward its surroundings that it can scarcely be recognized, especially when the cord is detached and the placenta is exsanguinated. To be sure the difficulties are no excuse, and if the hand is not able to find the margin, the obstetrician should abstain from the operation and call a consultant, for there is no immediate danger in delay.

What in former times especially was advanced as an excuse is that the placenta was grown fast to the uterine wall. It cannot be doubted that this may occur, still the difficulties of loosening the placenta are brought about much more frequently by other causes, such as: partial separation from improper pressure upon the uterus, whereby the still adhering portion cannot be separated on account of contraction of the uterus; location of the placenta upon

an unfavorable site, as near the tubal openings, in a lateral horn, and placenta prævia.

Our knowledge of the normal processes attending separation of the placenta is still imperfect, but so much is certain that the separation does not always occur in the same layer, and in some instances the muscularis is laid bare. That in artificial separation of the placenta we can much less speak of a single plane of separation is easily understood, and we can agree with Chazan that the separation takes place in an artificially produced plane. The band-like adhesions so often felt are nothing else than branches of chorionic villi which run in straight lines from the chorion to the serotina. The separation may take place within the foetal or in the maternal tissues, and as Scanzoni says more or less deep injuries of the inner surface of the uterus may arise in spite of every precaution. Oswald remarks that it is but a step from these slight injuries of the muscularis to complete perforation, especially when the placenta is situated upon a thinned portion of the wall. It is just under such conditions that artificial separation is required. Alexandroff confirms these views by the report of a case in which the chorionic villi had grown into the muscular tissue.—*Beiträge z. Geb. u. Gyn.*, Bd. viii., page 72.

Theodore J. Gramm, M.D.

NEW DENTAL SIGNS OF HEREDITARY SYPHILIS.—A. Darier, Paris, lays stress on the diagnostic significance of Hutchinsonian teeth, which are accompanied, sooner or later, by interstitial keratitis, choroiditis and osseous lesions. In many instances where the incisors and the canines show no alterations, or when the changes are poorly marked, he had often found analogous alterations as regards the first permanent molar teeth. As in the Hutchinsonian teeth, an arrest of development coming into play at the moment when the summit of the tooth covers itself with its cap of protective enamel, the four tubercles, insufficiently covered, exposes the yellowish dentine. The enamel forms below, thus enclosing, as with a collar, the four tubercles, which are very fragile and are soon destroyed by caries or ground down in chewing. This dental feature may be present even in adults of a certain age.—*The Ophthalmoscope*.

William Spencer, M.D.

EXPERIMENTS TO DETERMINE THE VALUE OF FORMALIN IN INFECTED WOUNDS OF THE EYE.—The writers gave details of these experiments, inspired by the recent report of the use of intravenous injection of formalin, 1 : 5000, in a case of general streptococcus infection. They began by determining the effect of the injection of 10 minims of a 1 : 5000 solution of formalin into the normal vitreous of the rabbit, and found that this procedure produced temporary glaucomatous symptoms, but that on the following day no signs of the injection were visible. Then the symptoms of injection following an injection of streptococcus material into vitreous of the rabbits were noticed. Finally, the effect of formalin injections into the vitreous of such infected eyes of rabbits were studied. The following conclusions were arrived at:

“1. Formalin, 1 in 500, may be injected into the vitreous of rabbits without producing more than momentary disturbance of the eye.

“2. It is possible to cause panophthalmitis and consequent destruction of the eyes of rabbits by injecting 3 minims of a turbid solution of streptococci into the vitreous.

"3. It is possible to produce the same results by infection in the ciliary region caused by penetrating wounds with infected pointed instruments.

"4. Infections of the vitreous and ciliary region do not necessarily cause destruction of the eye. At times the infected eye recovers spontaneously, the inflammatory symptoms gradually subsiding.

"5. Formalin, 1 in 1000, when injected into the vitreous, exerts no influence on streptococcus infection of the vitreous.

"6. The results of these experiments warrant the treatment of commencing infections of the eye by injections into the capsule of Tenon of 1 in 1000 or even 1 in 500 formalin solution." J. H. Claiborne and Edward B. Coburn, New York.—*The Medical News*.

William Spencer, M.D.

THE EFFECT OF RADIUM RAYS UPON THE VISUAL APPARATUS.—1. Radium rays excite within the eye the perception of light, even when at a considerable distance from it. They act upon the retina, from either side of the membrane, or through many more or less penetrable interposed obstacles.

2. Radium and light rays which differ in their physical attributes likewise differ in their physiological action upon the visual apparatus. Radium rays, in themselves, do not increase the visual power of the eye.

3. Radium rays, without being reflected or refracted by the media of the eye, are, at the same time, in a measure absorbed by them.

4. By sufficiently long and energetic influence upon the eye, radium rays can excite in the different sections of the eye inflammatory conditions (*e.g.*, keratitis and retinitis and, by prolonged action, even phthisis bulbi).

5. It is very probable that radium rays are capable of acting directly upon the central visual apparatus.

6. Bandaged eyes are capable after some practice of detecting the source of the rays and of recognizing simple figures written, with the rays, in space.

7. By the action upon the parium platino shade the radium rays excite diffused light rays of certain wave lengths admixed with heat rays. The latter being only to a slight degree appreciable to the eye. In a dark room this light is easily perceptible to the retinal elements spared in atrophy of the optic nerve. E. S. Loudon, St. Petersburg.—*Annals of Ophthalm.*

William Spencer, M.D.

ALCOHOL OCULOMOTOR PALSIES.—E. Raimann found in forty-four cases of alcoholic delirium seven cases of extraocular muscular and marked pupillary disturbance. Of the alcoholics, oculomotor palsies were present in about 30 per cent.; of those with well defined polyneuritis alcoholica, in 38 per cent.; of those with a single psychosis (paranoia, epilepsy, etc.), occasionally. The most frequent post-mortem findings were: hæmorrhages, blood-vessel degeneration in the central ganglia in the vicinity of the gray matter of the third ventricle, aqueduct of Silvius, and downward toward the spinal cord, in the neighborhood of the nuclei of the ocular muscles. In some instances these changes were absent, or were present without ocular palsies. The nerves supplying the ocular muscles were for the most part intact, both centrally and peripherally. As a rule, alcoholic ophthalmoplegias are of central origin, and this is more likely to be the case where there is progressive palsy of the extraocular muscles without involvement of the intraocular muscles, or with Argyll-Robertson pupils, or with an uncomplicated intraocular

muscles palsy or, lastly, with myosis. Moreover, a sudden onset, a transient course and varying phenomena point to central origin.—*Annals of Ophthalm.*

William Spencer, M.D.

DIONINE AFTER FOUR YEARS OF EXPERIMENTATION.—Darier admits that the use of dionine is painful and produces marked reaction, but says that in the latter fact lies its remarkable curative properties. He further says that certain cases seem unable to bear the use of the drug. He has employed it with marked benefit in retinal detachment, in chronic conjunctivitis, and in both acute and subacute glaucoma, especially before performing an iridectomy for the same, because of the great relief from pain. He has found its use valuable in the after-treatment of foreign body wounds of the cornea, in infectious corneal ulcers, and in infective complications of cataract extraction. He also made use of it in the after-treatment of cataract extraction when the wound is firmly closed; in diffuse corneal infiltrations; in parenchymatous keratitis in the early or late stages; and in sub-conjunctival hæmorrhage. He has found that the drug used as an anæsthetic has some value.—*La Clinique Ophthalm.*

William Spencer, M.D.

THE OCULAR COMPLICATIONS OF MUMPS.—Raux says that the complications of mumps, though rare, include optic neuritis, which may end in atrophy, keratitis, iritis, dacryoadenitis, palpebral abscess, paralysis of accommodation and conjunctivitis. He reports the case of a soldier with a previous negative history of dyscrasia or toxæmia. Fifteen days after the beginning of an attack of mumps the patient noticed that his vision was failing. Three weeks after this he was examined, when it was found that vision in each eye was reduced to one-fourth of normal, both eyes being emmetropic. There was some hyperæmia of the optic disk. In each eye there was a central scotoma for red and green. Cure resulted in two months' time.—*Archives d'Ophthalmol.*

William Spencer, M.D.

ACUTE APPENDICITIS: ITS DIAGNOSIS AND INDICATIONS FOR OPERATION.—(Russel.)—The latest views are summarized by the writer as follows:

1. Certain appendices are so formed anatomically that they must of necessity give trouble.

2. Interference with the drainage of the appendix is an important factor in determining inflammation.

3. The occurrence of appendicular colic may be taken as a warning that dangerous anatomical conditions exist in connection with the appendix.

4. In all abdominal cases detailed palpation should be carefully and patiently carried out.

5. Too much emphasis must not be laid on the site of the pain and superficial tenderness. Palpation should be directed towards ascertaining the condition of the diseased part.

6. Statistics show that from 90 to 95 per cent. of cases get well without operation and the chances against recurrence are as three to one. Therefore routine removal cannot be accepted as necessary.

7. Operate at once in any case with a history of previous attacks, also in cases commencing with a rigor.

8. The chief difficulty lies in the early recognition of the cases in which the

appendix will necrose and perforate rapidly. In this connection we should suspect cases which show constitutional disturbances with little inflammatory reaction round the cæcum, but present marked tenderness on deep palpation and an ordinary degree of leucocytosis.

9. In cases which do not call for immediate operation pain may be relieved by hot or cold local applications and by a cautious use of opium. Lavage may give good results.

10. Medical treatment should not be relied on for more than twenty-four hours or forty-eight hours, if severe pain continues or an acute tenderness on deep palpation persist.

11. Later in the disease a continuance of the local and general symptoms, along with a high leucocyte count, indicates the presence of pus and the necessity for operative interference.—*The Lancet*, March 19, 1904.

William F. Baker, A.M., M.D.

OBSTRUCTION AND CONSEQUENT DISTENTION THE CAUSE OF APPENDICITIS.—(Van Zwahlenburg.)—The writer basis his conclusion from active experience and experimentation on dogs. He holds to the following:

(a) Simple infection does not account for the suddenness of the attack nor early severity of the pathological changes in acute appendicitis.

(b) The evident interference with the blood-supply is best accounted for by the increased intra-appendicular pressure.

(c) Simple injecting of bacteria into the appendix will not produce appendicitis, unless used in an abnormal amount and of unusual virulence.

(d) Subperitoneal ligation of the appendix with a simple ligature, without distention, cannot be made sufficiently permanent to produce a general infection of the appendix typical of the attack of appendicitis in the human being.

(e) Experiments in dogs show that hydraulic pressure equal to the arterial tension maintained within the lumen of the appendix for a short time is followed by typical appendicitis.

(f) The blood-supply in an extremity may be cut off with impunity for hours; but in the appendix the ever-present bacteria at once begin an infection, their entrance into the tissues being facilitated by the opening of normal and traumatic avenues by the very distention which cuts off the circulation.

(g) The importance of making a complete diagnosis and prognosis among the first twelve hours of the attack is emphasized.

(h) The study suggests the possibility of infections or other lesions being produced in other hollow viscera, especially in the gall-bladder, the stomach and intestines by temporary over-distention.—*Journal of the American Medical Association*, March 26, 1904.

William F. Baker, A.M., M.D.

PNEUMOCOCCUS INFECTIONS.—(Rosenow.)—The following conclusions may be drawn from the writer's article:

1. With improved technique, using for inoculation large quantities of blood, the pneumococcus can be recovered in practically all cases of croupous pneumonia and in obscure cases of pneumococcus infection, blood cultures may be a diagnostic method of positive value.

2. Pneumococæmia in pneumonia does not mean an especially unfavorable prognosis, and it is to be regarded here, as in subcutaneous pneumococcus infections of the rabbit, not as an especial ominous or agonal process, but rather as an integral part of the infection.

3. There seems to be a diminution either in the number or viability or both of pneumococci in the blood at the time of the crisis.

4. The number of leucocytes in pneumonia in man and in the pneumococcus infection of the rabbit is an index to the degree of resistance and the leucocytes probably constitute an important factor in combating the infection. The clinical observation that a high leucocyte count means a favorable prognosis irrespective of the presence of the pneumococci in the blood is probably correct.

5. The hypoleucocytosis developing on a previous hyperleucocytosis during the course of many fatal cases of lobar pneumonia (and in pneumococcus infection of the rabbit) cannot be looked upon as due to the entrance of the pneumococcus cells into the blood stream, but probably rather as the result of an exhaustion of resisting powers.

6. The leucocytosis may be incited at least in part by soluble substances liberated by pneumococci.

7. It was not possible to establish any appreciable difference in the degree of virulence of the pneumococcus isolated early or late in the course of the disease, nor in the fatal and non-fatal cases.

8. Fresh, normal and pneumonic blood and serum have no bactericidal influence on the pneumococcus. Whatever other differences they may have so far as this point goes, the serum from pneumonia patients behave exactly as does normal serum.

9. The interesting question whether lobar pneumonia is a primary result of a direct infection or a secondary localization of a primary blood infection is as yet hardly ripe for final discussion, but that the latter does occur is not altogether unlikely in some cases.

10. Agglutination of the pneumococcus by the pneumonic serum is constant, but the conclusion drawn by certain investigators that the voluminous sediment and early clouding of certain immune sera in which the pneumococcus is cultivated are due to a rapid lysis of the cocci seems incorrect. It seems to contain a precipitate, the results of acids which appear when the pneumococci are grown in pneumonic serum.

11. The production of acids by pneumococci in pneumonic serum suggests that some of the toxic symptoms of pneumonia may be due to an acid intoxication. This needs further study.

12. Since the viability and the virulence of the pneumococci are preserved for a remarkably long period of time on blood agar, we have in this medium an important aid to all investigations of this micro-organism. The constituent of the blood which has this remarkable effect is probably the hæmoglobin. Blood-agar plates are valuable for differentiation of pneumococci and streptococci.

13. That the pneumococcus by its growth in rabbits produces a soluble hæmolysin from the corpuscles of this animal is probably true. That this is either small in amount or unstable, or both, is likely.—*Journal of Infectious Diseases*, Chicago, March 19, 1904.

William F. Baker, A.M., M.D.

POLYCYTHÆMIA OF CONGENITAL HEART DISEASE.—Polycythæmia of congenital heart disease is of sufficient constancy to warrant distinct consideration. Wile (New York) reviews the theories that have been suggested to explain its cause and gives his own views thereon.

Cabot despairs of an explanation of this phenomenon. He points out that

in cases in which there is no evidence of stasis the erythrocytes may range from 6,000,000 to 9,000,000. The peripheral capillaries always contain more blood-corpuscles per cubic millimeter than the veins. Stengel believes that the imperfect oxidation of the blood doubtlessly causes the profound effects. Polycythæmia, relative, is noted in certain cardiac diseases with slow failure of compensation, and especially in congenital cyanosis.

Cyanosis does not necessarily indicate admixture of venous and arterial blood, for it may be absent in arteriovenous aneurism. Venous stasis and insufficiency of oxygenation are the chief causes. Arcangeli rightly claims that the deficient amount of blood going to the lungs in cases of pulmonary stenosis results in insufficient oxidation, which in turn stimulates the hæmatopoietic tissues to productive activity, hence compensatory polycythæmia. It is known that diminished atmospheric pressure produces polycythæmia; when oxygen pressure is low, therefore, from whatever cause, increased corpuscle formation takes place.

The writer looks upon the problem as one of "compensatory hypertrophy," viewing the blood in the light of a tissue. It is an effort on the part of nature to bring about an equilibrium between the body and the oxygen supply. —*Archives of Pediatrics*, May, 1904.

C. Sigmund Raue, M.D.

TONSILLITIS A CAUSE OF ACUTE NEPHRITIS.—Morse (Boston) calls attention to the fact that while tonsillitis has of late years been recognized as a prominent ætiological factor in the causation of acute endocarditis, still there has been practically no mention made of it in connection with acute nephritis. It would seem reasonable that tonsillitis, being due to bacterial infection—especially streptococcic—should be followed by nephritis, as we know that the nephritis of scarlet fever is of this nature.

During the last year he has encountered four cases of acute nephritis following upon tonsillitis. Two were in adults and two in children, so it does not appear as if age exerted any influence.

In the adult cases scarlet fever could be positively excluded, while in the younger ones there was no reason to suspect this disease, although it may be granted that scarlet fever without eruption can occur. There was, however, not the least likelihood that these children had been exposed to scarlet fever infection, and the sore throat was not of the appearance of that seen in scarlatina. The lymphatic glands were enlarged and there was no exudate on the tonsils. No desquamation could be detected.

Morse concludes that a disease that can produce endocarditis and acute nephritis should not be looked upon as a simple condition without importance. —*Archives of Pediatrics*, May, 1904.

C. Sigmund Raue, M.D.

THE OPEN-AIR TREATMENT OF BRONCHO-PNEUMONIA COMPLICATING WHOOPING-COUGH.—(Ker.)—The writer gives us valuable information regarding his treatment of this condition associated with whooping-cough. The experiments were conducted in Edinburgh City Hospital.

The cause of death in the vast majority of cases is undoubtedly the broncho-pneumonia, and while much may be done to assist the strength of patient, any adventitious help to the lung condition must be welcomed; particularly is this so when we look at its vast mortality.

The records of Edinburgh Hospital show a death-rate of 71 per cent. The

fact that many of the whooping-cough cases developed the disease after being admitted to the hospital, evidently from ward infection, influenced the writer to try the open-air treatment. Many writers have allowed those suffering from pertussis the open-air treatment; but with the onset of a pulmonary complication this is interdicted.

The first cases were the worst ones, and many were regarded hopeless. They were carried out and left in open air six hours daily, provided it did not rain. No bad results were noted, but good followed in many. The children were warmly covered and the chest wrapped with cotton. The main effects of the treatment were as follows: The whoops were unaffected in number and severity. The patients took their food ravenously and their general strength improved. They all slept better and the general nervous tone of all was improved. Another practical advantage was the complete rest given the ward, from one to seven hours daily. While one case which was admitted uncomplicated developed broncho-pneumonia and had several relapses in convalescence, it may be said that under this treatment broncho-pneumonia of hospital origin became quite extinct. As regards the severity of the cases treated there is no doubt at all. Many were admitted cyanosed, with temperatures of 103° or 104°, respirations 60 to 80, and pulse running from 140 to 170.

Even in the favorable cases these symptoms continued for a long time, though the pulse- and respiration-rate slowly decreased and cyanosis disappeared.

The writer gives tables of various groups of cases treated over certain periods. Treated indoors entirely, 74 cases; deaths, 51; 66.9 per cent. Treated outdoors, 76 cases; deaths, 24; 31.5 per cent.—*Scottish Medical and Surgical Journal*, January, 1904.

William F. Baker, A.M., M.D.

POST-OPERATIVE CYSTITIS.—Baisch, in speaking of the severe and often dangerous cystitis which almost constantly follows the total extirpation of the carcinomatous uterus according to the method of Wertheim, and the sometimes fatal results from secondary infection of the kidney, says that it has been possible to entirely obviate this inflammation of the bladder which so commonly follows the use of the catheter after this and other gynæcological operations, if the bladder be irrigated after each catheterization, and if this washing out of the bladder be continued until the function of micturition is completely restored and until the last urine is free from cloudiness.—*Centralbl. f. Gyn.*, 1904, 380.

Theodore J. Gramm, M.D.

THE POSITION OF THE ARMS DURING NARCOSIS.—Rothe, in commenting upon a recently devised appliance for holding the arms during anæsthesia, refers to one which he also invented, and says that the proper position is *at the sides of the body*. He also calls attention to the serious accidents, in the nature of paralysis of the arm, which have frequently followed upon having the arms extended above the head as is sometimes done when the patient is operated in the Trendelenburg position.

Incidentally also he directs attention to the fact that the really expert anæsthetist who pays strict attention to his work is not dependent upon constantly watching the pulse, even during chloroform narcosis, but may obtain the necessary information of the actual condition of the patient from the pupillary reflex.—*Centralbl. f. Gyn.*, 1904, 379.

Theodore J. Gramm, M.D.

MONTHLY RETROSPECT OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

THE TREATMENT OF TYPHOID FEVER.—It will be a pity if any member of the profession fails to read Dr. H. V. Halbert's thesis upon the "Treatment of Typhoid Fever," which appeared in *Medical Century* for May. The broad-mindedness of this writer leads him not only to feel that the tendency of present day medical literature, which leans so exclusively towards the history and attendant pathology of the disease, is unsatisfactory; but it prompts him to urge upon the profession a careful and systematic study of the individualizing features of every case. It is a very easy matter to treat a disease when its cardinal symptoms tell us just what we are to expect, but the perplexity arises when unexpected symptoms show us that some occult factor is at work. In spite of the difficulties which have stood in the way of the successful application of the principles of antiseptics in the treatment of typhoid fever, the author still believes that ultimately we shall find some useful antiseptic adjuvant. Reference is again made to the efficiency of methylene blue, which he has used for several years. Experience has shown that this agent has materially reduced his mortality-rate, both in private and in hospital practice. By its early and constant use the tympanites, the fever and the delirium have been minimized. He rarely has a case of hæmorrhage, and the terrible subsultus and general nervous excitement do not attend. Those who are familiar with the typhoid picture in which such features are prominent will be more than interested in such statements. Dr. Halbert remarks that, with the assistance of methylene blue, he has carried to recovery some of the most desperate cases, which a few years ago he feels might have perished. Chocolate-coated pills containing one to three grains have been found to be more useful than the first decimal potency, which was formerly used by him. The subject of diet is taken up at length. For the first few days nothing but sterilized water is allowed. Then two to six ounces of milk diluted with an equal quantity of water is given. While, of course, there may be exceptions, he advises us to get along with as little food as possible, consistent with the condition of the patient. When the anæmia incident to a long run of typhoid is extreme, broths and soft eggs are recommended. The cold pack and the systematic use of the cool sponge are considered to be decidedly preferable to the tubbing of typhoid patients. The high normal salt enema he considers decidedly useful. Should hæmorrhage appear, nitric acid is given the prefer-

ence over other internal remedies, but at the same time the hypodermatic administration of morphia is thought necessary to arrest peristaltic excitement. The author also says that a pill containing one grain of lead acetate and one-quarter grain of opium is a serviceable combination to be used after the hypodermatic remedy has served its purpose. The recent results of operative interference in intestinal perforation encourages Dr. Halbert in his belief that this unfortunate complication is beyond the skill of the physician and should rightly belong to the domain of surgery. Every one has his favorite remedy or remedies, and the author expresses his own preference for either baptisia or arsenicum. The latter remedy seems better indicated for the effects of the fever, when temperature begins to subside. When exhaustion, anæmia, heart weakness and depression are prominent, arsenic is called for. The paper concludes with the warning that the physician who would win success must ever consider the individualizing symptomatology of the case in making a prescription. The author has endeavored to take the middle ground in treatment, avoiding, on the one hand, the bigotry that teaches only one phase of therapeutic procedure, and, on the other hand, avoiding that so-called liberalism which ignores the doctrine of similars, because it knows nothing about it.

ARNICA MONTANA.—Dr. M. E. Douglass, in *Medical Counselor*, says in reference to the well known Leopard's Bane of our pharmacopœia: It is more than probable that the active ingredient is neither the arnicine nor the ethereal oil as has been supposed, but trimethylamine. The recent experiments of M. Beaumetz render it clearly evident that trimethylamine has a very definite physiological action. It diminishes the excretion of urea, it slows the pulse, it diminishes bodily temperature. These later experiments would seem to confute the statements of those who, possibly on account of the reputation of arnica as a homœopathic medicament, have denied that it possessed any physiological, or even therapeutic, power. Again, it is well known that arnica sometimes produces marked irritation of the skin when used externally. This poisonous effect has been ascribed to the presence of insects upon the plant from which the tincture had been made. This may not be true, because when trimethylamine is dropped upon a mucous surface it produces burning followed by inflammation, desquamation of epithelium and, finally, ulceration—or at least a sore is produced. There has always been good evidence of the utility of arnica in rheumatism and in rheumatic gout. The homœopaths have not been alone in their use of arnica in such complaints. Trimethylamine, also, has been found to be singularly efficacious in acute rheumatism. Awenarius, as long ago as 1854, treated two hundred and thirteen cases within a period of three years. Frequently he was able to arrest the fever and relieve the local joint symptoms within twenty-four hours. In typhoid and typhus fevers the beneficial action of arnica is clearly an example of its homœopathic relationship. The more modern scientists investigate drug-effects and explain therapeutic effects of drugs; the more clearly does it appear that the homœopathic application of remedies to the symptomatic expressions of disease is thoroughly "scientific." (We are going to have a "science of therapeutics" discovered after awhile. It will not be termed homœopathy, nor will it be said to be based upon *similia similibus*, but it will be the same thing nevertheless. The modern investigator of drug-action and drug-effects may duck and dodge as much as he pleases, but every time he raises his eyes to a new discovery,

he cannot fail to see the writing upon the wall: "*Similia Similibus Curentur.*")

CATARRHAL COLD: ITS TREATMENT.—Dr. C. Gurnee Fellows does not believe that it is necessary, or best, to allow a cold to run along for weeks, but that by skilful management we may quickly relieve and cure. He has much confidence in aconite 1x or 2x, when exposure to cold winds or chilly atmosphere has resulted in sneezing, chilly sensations in the spine and stuffy nose. Gelsemium is better when the patient has had his feet wet, or has been so thoroughly chilled that reaction does not take place, and he gets up next morning with stuffy nose, heavy eyes, sneezing, and the peculiar dulness accompanying the affection of the sinuses. He gives the 1x or the tincture. If the sinuses are not affected and the cold is of the type of profuse, watery discharge, with sneezing and watering of the eyes, he prefers allium cepa., two or three drops of the 1x or 2x every half hour.

The iodide of arsenic 2x is indicated in a similar condition in which the discharges are thin, but apt to be more irritating, accompanied by sore nose and upper lip, and in which the sneezing is not a relief, but is followed by more stuffiness of the nose. If such a type of cold is not relieved within forty-eight hours, the author believes that it is more than an ordinary cold and may last for a long time, unless its exact nature is recognized and the proper treatment begun. The mucous surfaces of the ethmoid and sphenoidal sinuses are involved, the Eustachian tubes and the middle ear. He has relieved such cases by obtaining proper drainage from the accessory sinuses. Warm sprays or douches of an alkaline character, and a spray of chloride of adrenalin, one part to five thousand, or stronger if necessary, are here recommended. In this stage of a cold the author's experience has taught him to rely upon the following remedies: Hepar sulph. 1x will start up the secretions and so facilitate drainage. He does not continue this remedy more than a few hours, on account of its tendency to cause an increased susceptibility to colds. Muriate of ammonia 2x for stuffy nose, heavy head and loss of smell. Gelsemium 1x for the heavy frontal headache, involvement of the sinuses, recurring chilly sensations in the spine, heaviness and soreness of eyeballs and muscles. Mercurius iod. or biniodide 2x for the soggy mucous membrane of the nose and throat, with closure of Eustachian tubes, opening with a pop only to close again. Baryta mur. when the Eustachian tubes are too widely open, and when the patient inflates the middle ear every time he blows his nose. Kali iodide for thin, watery discharge, alternating with stuffiness and dryness of the nose without discharge. Profuse, greenish or yellow, un-irritating discharges likewise. Later on, oily medicated sprays are advised.—*The Clinique.*

THE PRESENTATION OF THERAPEUTIC FACTS.—I am in doubt whether the help afforded medical students and beginning practitioners, by the grouping of remedies for certain diseases, is not more than counterbalanced by the harm done through its tendency to narrow the field and shut out possible remedies for probable cases in later practice. I can truly say that every year's experience teaches me to pay less attention, in a therapeutic sense, to what the disease may be named, and more and more attention to the characteristic individualities of my patients. Thus my satisfaction with the practice of medicine as a successful art increases in proportion.—W. J. Hawkes, M.D., in

Medical Counselor. Indeed, Dr. Hawkes is not alone in his fear that the method of presenting therapeutic truth to the student is oftentimes more of a stumbling-block in the way of his future progress than a real help and stimulus to further effort. We are willing to grant that the mere repetition of diseases by name, with the remedies to be used in such diseases, will foster a false idea of the subject in any student's mind. But it does seem best to study diseases in groups, and likewise it does seem best that the beginning practitioner should first be taught how to use those remedies which the experience of older men have shown to be reliable in those diseases, before he is taught that any remedy which covers the symptoms may be a remedy in that disease. The student must first have a solid groundwork, in the way of a perfect knowledge of those remedies which are commonly useful and commonly called for, before he may safely be taught those remedies which might be called for once in a dozen times. Thus in pneumonia, which was the subject that prompted the author to make the statements which opened this article, the student had better be taught first of all how to use bryonia, phosphorus and antimonium tartaricum, before he is told that sanguinaria, rhus tox and hyoseyamus are almost as useful, when indicated. This expression, "when indicated by the totality of symptoms," means a great deal to the old practitioner, but it does not mean so much to the student. Our colleges need a kindergarten for the teaching of homœopathic principles and materia medica, from which the student should pass to the contemplation of the more intricate problems of the science. We plunge them into the intricacies before we have taught them the elementary principles thoroughly. The result may be—superficiality.

POISONING FROM A SUBLIMATED VAGINAL DOUCHE.—Prof. Wood, *American Medicine*, reported a case in which the use of a vaginal douche of bichloride, 1-4000, produced pains in the loins, frequent, painful micturition, loss of appetite, smokey, albuminous urine, and hyaline tube casts in the urine. It has been stated that the vagina had very little, if any, power of absorption. This case would seem to prove that an intact genital tract may absorb mercury in sufficient quantity to produce serious toxic symptoms, even from a dilute solution.—*Eclectic Med. Journal*.

THE DISTRACTING ADVERTISEMENT.—One of our esteemed contemporaries writes, in a pessimistic vein, regarding the distracting influence of the multitudinous advertisements which form the alpha and omega of the modern medical journal. From this we fear that the gentleman has been spending his time watching the Glyco-Thymoline Lady, taking her *décolleté* douche, when he should have been perusing the meat which may be found lying somewhere about the centre of the modern literary sandwiches. But advertisements are very necessary adjuncts to the medical monthlies. Any editor will explain the reason of this, if the complaining writer cannot guess it. An old friend of ours complains that the average monthly magazine makes him tired—because of the weight of advertisement pages; so he first removes these and then finds that he has left just a comfortable handful of reading matter. This simple expedient might help our esteemed contemporary to keep his mind upon the meat of his journals. For our own part, we think the advertisements are occasionally the most interesting portion of some medical journals.

VERIFICATIONS OF CAJAPUT.—Dr. A. L. Fisher, in *Medical Advance*, has recorded a cure which he made by the oil of cajaput in the 3x dilution, from

the tincture, we presume. This remedy has been proven and its pathogenetic record may be found in Clarke's *Dictionary*. In the provings it produced a swollen or constricted sensation, especially when the prover attempted to swallow solid food. Also a persistent sensation as if choking. Dr. Fisher met with the case of a man, aged about 50 years, who could not eat either solid or semi-solid food without experiencing severe cramping or constricting pains in the œsophagus. He had been unable to eat other than liquid food for some weeks, and had therefore grown weak and unable to continue at his occupation. The doctor does not know whether the case was one of spasmodic stricture of the œsophagus or one of superficial ulceration, but nevertheless, being a homœopathic prescriber, he searched the records for the similimum and found it in Allen's *Symptom Register*. This masterly repertory has been one of the books with which we have been much disappointed, probably because we have not learned how to use it. It has seemed to contain everything except that for which we sought. Cajaput in the 3x cured the patient, and this confirmation is worth adding to your *materia medica*. We shall remember this remedy, with baptisia, as useful in those curious spasms of the œsophagus, for which we lack many remedies of proven efficacy.

PHYTOLACCA IN APHONIA.—Dr. Frederick Kopp speaks of the *Phytolacca octandra* as having earned for itself golden laurels in the treatment of aphonia. He thinks that it may be very effectual even in chronic and obstinate cases. The tincture from which his first decimal is made is an alcoholic preparation of the ripe berries and is not prepared from the root.—*Hom. World*.

HOW TO BECOME A HOMŒOPATH.—When we began to read Dr. Emil Kober's essay upon this topic, we imagined that he might advise a four year's course at some of the excellent homœopathic colleges of this country, as a suitable introductory move; but not so. He says instead that if you wish to become a homœopath you must be willing to give a few hours of each day of your life to the study of the *materia medica* and of your cases. He gave three hours daily to this study and never went out without a book to read while riding upon the cars. From which one might conclude that a diploma from a homœopathic college does not make one a homœopathic practitioner. We should not relish the task of having to prove that the essayist was wrong. As has been said so often in THE HAHNEMANNIAN, it is the time, *after graduation*, which is spent in the earnest study of the principles and practice of our special science of therapeutics, that counts in the development of the homœopathic practitioner; and not that which was learned at college. In *Medical Advance*, for March, Dr. Kober tells the reader what, in his estimation, constitutes a suitable short course of study for the would-be homœopathic practitioner. He thinks that Miller's *Synopsis of Homœopathic Philosophy*, Nash's *Leaders* and Farrington's *Materia Medica*, as arranged by Bartlett, might properly start the study. Then the *Organon* could be read understandingly. Next he advises a study of Allen's *Keynotes*. Hughes' *Pharmacodynamics* he believes may mislead a man who is not firmly fixed in the faith, by giving too narrow a conception of the remedies. Then he thinks the reader, or rather the student, is ready to take up Clarke's *Dictionary*, Hahnemann's *Materia Medica Pura* and Hering's *Guiding Symptoms*. As useful repertories in connection with the last named books, he recommends: Knerr's, Kent's, Bœnninghausen's. For reference Allen's *Encyclopædia* is almost indispensable. Now, if

our readers will glance through this list and pick out the volumes which they have actually and earnestly studied or even perused, they may be able to explain why it is that they do, or do not, know much about the practice of homœopathy. You may laugh, but Dr. Kober is right.

FICUS RELIGIOSA.—Dr. Sarat Chandra Ghose of Calcutta has proven this remedy, which is native in India where it is known as Ashwathya. Forty drops of the tincture of the fresh leaves produced frequent desire to urinate with the passage of *bloody* urine. It also caused an inclination to cough with expectoration of blood. In another prover it produced, in doses of 20 drops, dysentery and menorrhagia. The blood was bright red. When given to a dog, it produced vomiting of bright red blood. This remedy has been used with success in: hæmatemesis, hæmaturia, menorrhagia, metrorrhagia, hæmoptysis, bloody dysentery, bleeding piles and epistaxis. It seems to have an almost magical power to stop hæmorrhage.—*Homœopathic Recorder*.

DIVERTICULA OF THE ŒSOPHAGUS.—In looking up the subject of œsophageal stricture and œsophageal spasm, *apropos* of the case referred to in last month's *Retrospect*, we came across the interesting remarks of A. E. Halstead upon the subject of diverticula of the œsophagus. It appears that the symptoms of this latter affection are identical, in the beginning, with those of a gradually increasing stenosis. They usually occur in persons over 50 years of age. Regurgitation is a prominent sign. In diverticula of the upper portion of the œsophagus, the sac, which nearly constantly contains mucus and food *debris*, empties itself partially, or wholly, when the patient assumes the reclining position. In diverticula more deeply seated, food taken several days previously may be ejected, while that taken in the interval may be retained. Pain is a usual symptom, if the sac be large enough to exert pressure. The sac may be skiagraphed by filling it with bismuth mixture or by passing a sound into it. These facts will be useful in a differential diagnosis. The only palliative treatment worth considering is the persistent use of the sound and stomach-tube. The curative treatment is of course surgical.—*Annals of Surgery*, quoted in *Therapeutic Review*.

A METHOD FOR THE RELIEF OF OBSTINATE HICCOUGH.—Dr. H. D. Bishop relates a case of appendectomy with fecal fistula and drainage, attacked forty-eight hours after operation by obstinate hiccough which various remedies failed to relieve. The doctor at last placed the bowl of a heavy spoon, concave side down, upon the base of the patient's tongue. Pressure was then made downward and forward, the mouth being widely opened, and the head thrown backward. At the same time the patient was directed to inspire twenty times as deeply and as rapidly as possible. The hiccough ceased as if by magic. A recurrence, three hours later, was checked in the same manner.—*Medical Century*.

PROGRESSIVE IDIOPATHIC PERNICIOUS ANÆMIA; PICRIC ACID.—In his article upon "Picric Acid," Dr. O. F. Miller suggests that the fatty degenerations, the abundant deposits of hæmatin and hæmatoidin in the hepatic periphery, the slight but distinct jaundice, the intolerance of any mental or physical exertion, the great weakness and the intense headache, the remarkable air hunger, the destruction of the blood corpuscles, all point to the possible usefulness of picric acid in that almost uniformly fatal disease—progressive pernicious anæmia.—*Medical Century*.

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THE ACUTE DIARRHŒAS OF INFANCY—ÆTIOLOGY AND PATHOLOGY.

BY S. W. SAPPINGTON, M.D., PHILADELPHIA.

Preliminary Considerations.—A classification of this subject of necessity precedes its ætiology, pathology and symptomatology, and is especially desirable on account of the looseness of certain terms used in reference to it. Though the unsettled state of its ætiology and pathology makes present classifications essentially temporary, they are all steps toward a permanent one. The terms diarrhœa and dysentery themselves, at this time useful, are not very appropriate for these enteric disturbances.

It is to be noted that our knowledge of the intestinal disturbances of infants associated with diarrhœa is as yet very imperfect. The bacteriology especially, and also the pathologic anatomy, is rapidly and surely being cleared up by a number of observers working in this line under the auspices of the Rockefeller Institute. But the pathologic chemistry and physiology, matters which are so important in the intestinal disorders of infants, are almost entirely obscure. We are apt to think of the pathology of a disease as including only the pathologic anatomy and histology—undoubted alterations in structure. But we beg leave to remind one that the pathologic physiology and chemistry—alterations in the functions and normal chemie processes—are important parts of the pathology, and ones that will be demonstrated accurately by methods of precision in the not far future.

Former classifications were upon a clinical basis. It is to be hoped that we can soon classify the diarrhœas upon a basis of their causation, but as yet we can only do this in part.

Varieties of Acute Infantile Diarrhœas.—We will here divide the infantile diarrhœas into the *non-infectious* and the *infectious*. This is an ætiologic classification, but as a matter of fact the non-infectious forms are those without anatomic lesions, the physiology and chemistry of digestion being disturbed; while the infectious forms all exhibit more or less alteration of structure along with morbid function.

Non-Infectious.—Under the non-infectious diarrhœas we find such sub-varieties as *nervous*, *mechanical*, *medicinal*, *eliminative* and *dyspeptic*. *Nervous* diarrhœas easily occur in the undeveloped child from heat, cold, fright, fatigue and dentition. *Mechanical* diarrhœas might also be classed under the nervous form, as they seem to arise reflexly from the irritation of foreign bodies or food which is so indigestible as to act practically as a foreign body. The *medicinal* diarrhœas include those exhibiting the toxic or physiologic effects of cathartic drugs or certain constituents of foods, as the organic acids in fruits. The *eliminative* diarrhœas are those occurring when the bowels are acting as eliminating agents for toxic products derived from morbid processes in the body. This is found, for example, in measles. The *dyspeptic* diarrhœas constitute an important group in which there is, as Koplik puts it, an anatomic and physiologic inability on the part of the intestines and stomach to cope with the food taken. In other words, the intestine is unable to do its work on account of the quality and quantity of the food served it or a weakened digestive power of the gut itself.

Infectious.—The infectious diarrhœas are all due to bacteria or their toxins or both. The two chief sub-varieties are, according to Holt, *acute gastro-enteric intoxication* (acute fermental diarrhœa) and *acute ileo-colitis*. The former includes what is commonly termed summer diarrhœa and cholera infantum. The latter includes the catarrhal, ulcerative and membranous forms of ileo-colitis, which are also forms of “summer diarrhœa.”

Ætiology.—A multiplicity of factors are concerned in the production of infantile diarrhœas, but three are of such pre-

eminent importance as to overshadow all others. These three, bacteria, atmospheric temperature and food, will first be considered, and the other minor factors in turn.

Bacteria.—The immense numbers and varieties of bacteria found under both normal and pathologic conditions in the intestinal tract have rendered isolation of causative organisms exceedingly difficult. The bacillus lactis ærogenes, the colon bacillus, streptococci, staphylococci, the bacillus proteus vulgaris, and the bacillus pyocyaneus have all been isolated in certain diarrhœas, but constant and special relationships have not been established. It may be said, however, without discussion, that the latest bacteriologic investigations have shown that the newly discovered bacilli of dysentery are the specific organisms for a certain number, perhaps the majority of diarrhœas occurring in infants. Dysentery bacilli constitute a group and not a single organism as was first thought. Two prominent members of this group are the bacillus of dysentery of the Shiga, or alkaline type, and the bacillus of dysentery of the Flexner-Manilla, or Harris or acid type. It was first stated that the Shiga bacillus was the organism found in infantile diarrhœas, and though it is present in a small proportion, it is now known that the bacillus of dysentery isolated in the majority of such cases is of the so-called acid or Harris type. This is an important point where anti-dysenteric serum is concerned, for the serum of one type is not specific for the other. This acid type of dysentery bacillus has been found in the mild, as well as the severe, forms of enteric disturbance, but is much more likely to be present in the severe forms. Park believes that a number of bacteria are concerned in the ætiology of these diarrhœas, and that most of the watery diarrhœas are due to colon bacilli and streptococci alone or together. He thinks the dysentery bacillus is not a very important factor unless dysenteric symptoms are present, by which we understand that mucus or blood, or both, are found in the stool. The colon bacillus produces agglutinins that will clump the acid type of the dysentery bacillus, and it may be that certain colon infections have been confused with the dysentery bacillus, inasmuch as the colon and dysentery groups present morphologic and cultural similarities. Wollstein was not able to demonstrate dysentery bacilli in normal stools or in the intestine of children dying from

other than intestinal disease, and it is supposed that this group of bacteria is not normally present in the bowel. It is not positively known how they reach the intestine. Amœbic dysentery in this climate and in acute infantile diarrhœas may be practically disregarded. As regards the ordinary bacteria found in milk, Park and Holt isolated and studied 239 varieties, and after two years' study were unable to find any relation between special varieties of bacteria found in milk and infantile diarrhœas. Bacteria in enormous numbers in milk may produce toxins or ferments which will act deleteriously even after all the bacteria have been destroyed by sterilization. Finally, bacteria introduced with food, while not acting directly, may induce conditions which will allow the growth and pathogenic action of other organisms.

Temperature.—It would seem that this factor practically exceeds all others in importance. While bacteria, like the poor, are always with us, they cannot do any great harm except under favorable thermometric conditions. This is supplied in our climate during the summer months, and the enormous increase of diarrhœal diseases in infants during June, July, August and September, reaching a maximum in July, is the result. Compared with winter figures under precisely the same conditions of feeding, the contrast is startling. Besides favoring microbic growth, the summer heat acts in many other depressing ways. As a single example, it has been demonstrated that a child cannot digest the same percentage of fats and proteids in summer as during the cold weather.

Food.—The importance of food as a factor, while inferior to that of atmospheric temperature, is considerable. Proper food in proper quantity and at proper intervals means much to an infant. The effect of proper food could not be more strongly shown than in Holt's figures of 1943 fatal cases of diarrhœa, of which only 3 per cent. were exclusively breast-fed. To some extent the number and severity of cases of diarrhœa during the summer months varies according as properly modified milk, fresh, pure, bottled milk, various grades of milk, as regards freshness, cleanliness and composition, or condensed milk is used. Raw milk is much more likely to produce harmful results than milk sterilized shortly before feeding. Park and Holt have shown that, in the tenement districts of New

York, the reduction in infant mortality during summer months is in large part influenced by the now generally prevalent custom of heating milk. Even with proper food supplied, great harm may arise from feeding too large quantities or at too frequent intervals. Other foods than milk when given to infants or older children, especially during the heated term, may give rise to deleterious effects. This is particularly true of fruits. In some cases, milk or other food may act directly as a poison, but oftener it prepares the proper soil for the action of bacteria.

Age.—Over 80 per cent. of cases are under 2 years of age, and the liability to enteric disease is specially marked between the sixth and eighteenth months. The popular belief in the dangerous “second summer” of the infant is not without foundation. The smaller percentage of patients under six months we suppose is due to the fact that at this time the infants are usually breast-fed.

Surroundings.—Residence in cities and in densely populated districts is not of so much importance as a lack of personal cleanliness and hygiene in regard to the child. Clean food, the clean milk-bottle and nipple, the proper care of the napkins, the bathing of the child, clean living rooms, and fresh air all go a great way toward maintaining health under adverse circumstances.

Constitution.—This includes many things. The child may be congenitally below par. Chronic affections, as rickets, syphilis, tuberculosis or marasmus, increase the liability to terminal diarrhœa. Acute affections, as the pneumonias, diphtheria or measles, may be complicated or followed by intestinal disease. Rarely, there are cases undoubtedly associated with dentition. The number of these was formerly exaggerated. Finally, errors of feeding, before discussed, quite commonly produce chronic dyspepsias, which both constitutionally and locally lay the subject open to intestinal infection.

Miscellaneous.—In speaking of the non-infectious varieties of acute diarrhœa, the nervous, mechanical, medicinal, eliminative and dyspeptic forms were referred to and the causes there given. All are usually of slight import except the dyspeptic form.

Pathology.—The *non-infectious* diarrhœas exhibit no anatomic or histologic lesions. The pathology in these cases is one of

morbid physiology and chemistry, which, as already stated, is not yet worked out. As a rule, such diarrhœas are not serious, either pathologically or clinically, and are of short duration; but when prolonged and assisted by other predisposing causes, these functional alterations may be but the first stage of serious organic enteric disease. This applies especially to those dyspeptic diarrhœas which are sometimes described as acute intestinal indigestion.

The *infectious* diarrhœas include *acute gastro-enteric intoxication* and *acute ileo-colitis* (Holt).

Acute gastro-enteric intoxication is due to the action of bacteria assisted by predisposing causes. The intestinal symptoms are due in part to the direct action of the bacteria on the gut, but in much larger part to toxic products derived either from the germs themselves or their action on the intestinal contents. The constitutional symptoms we believe are largely due to alterations of functional activity and the presence and absorption of toxic products. The lesions are often insignificant. Anyone who has done many post-mortems on infants dying from very acute intestinal disorders will appreciate how frequently the findings are apparently negative. There may appear to be certain changes, but autopsies on children dying from entirely different diseases will show practically the same condition in the gut. We do not think much of such terms as "congestion," or a "pale, anæmic appearance" of the intestine. Such phenomena are observed under a great variety of circumstances. What changes are found are usually situated in the large intestines, lower end of the ileum and the stomach. Here may be seen undigested food and an unusual amount of mucus. There may be enlargement of the lymph nodes and patches in the colon and lower ileum, but this, as Holt says, may be due to antecedent processes. Microscopic findings are only to be considered of value when the autopsy has been held very shortly after death. This, of course, is because of the rapid post-mortem changes taking place in the gut. Such examinations have revealed degenerative changes in the epithelium of the intestine and stomach. The lymphoid elements are increased. There may be some peri-vascular exudation; this is inconstant. Bacteria are often observed in the epithelial layer. There may be slight degenerative changes in other organs

from the absorption of toxins. In the most intense form of intestinal intoxication, cholera infantum, the entire intestinal tract is said to have a "pale, washed-out appearance."

Acute ileo-colitis is the severe form of infantile diarrhoea in which, in addition to errors of intestinal physiology and chemistry, marked lesions are found affecting quite constantly the colon and lower ileum or the colon alone. Three types may be recognized, acute catarrhal ileo-colitis, acute ileo-colitis with follicular ulceration, and acute membranous ileo-colitis.

Acute catarrhal ileo-colitis occurs in different grades of severity. The intestinal contents are usually thin and green. The mucous membrane is swollen, even thickened, and covered with mucus, which may be blood streaked. Small hæmorrhages may be seen in the gut. The solitary glands of the large intestine are enlarged and project above the mucous membrane. The lymph nodes of the ileum may or may not be grossly enlarged. In the severest forms, superficial ulceration takes place in the colon, rarely in the small gut, but does not extend deeper than the mucosa. These ulcers, however, extend quite widely superficially, and may coalesce with others to form large areas of a worm-eaten appearance. In the centre of the single ulcer is the small, granular lymph node. The mesenteric glands may be much enlarged, as in typhoid fever. Microscopically, there is first degeneration of the surface and glandular epithelium and swelling of the mucous cells. The epithelium breaks down and bacteria invade the mucosa. This is responded to by swelling of the lymphoid tissue and infiltrations of round cells, the superabundance of which is cast off with the mucus. The submucosa may also be infiltrated and there is hyperplasia of the lymph nodules. In the areas of superficial ulceration the mucosa is completely destroyed and the submucosa densely infiltrated.

Acute ileo-colitis with follicular ulceration is usually grafted on some preceding forms of infantile diarrhoea, and occurs especially between the sixth and twentieth months. The affection would seem subacute rather than acute, the average case lasting about three weeks and commonly terminating fatally. As a rule, the colon, particularly the lower half, is alone affected, but some cases show involvement of both ileum and large bowel, and in a few the lower ileum alone is ulcerated. The

gross lesions appear first as tiny ulcers over prominent lymph nodes. The lymph follicles soften and break down and the ulcer extends in depth and breadth. The extension in breadth is below the mucosa, and the result is an undermined ulcer with overhanging edges. These ulcers are often quite deep, and may extend down to and show the muscular coat. Coalescence is not uncommon. They do not result in perforation. Microscopically, the process is seen to begin with hyperplasia and swelling of the lymph follicle, followed by softening from the summit downwards and rupture of the contents into the intestine. This latter fact explains to some extent the common abundance of small round cells in the stools. Sometimes, softening begins at the centre of the node. The disappearance of the follicle and the infiltrated edges of the cavity left mark the site of the ulcer. The process may extend in the submucosa and cause necrosis. Early and in the milder cases the changes in the other parts of the bowel are slight, but in the severe, long lasting cases there is extensive infiltration and necrosis of the adjacent mucosa and submucosa, and even of the muscular layer.

Acute membranous ileo-colitis affects, as do preceding forms, the colon and lower ileum or the colon alone. And very rarely, as also in the other forms, are higher parts of the bowel attacked. The intestinal wall is said to be firm, stiff, two or three times its normal thickness, and not thrown into folds as in the normal intestine (Holt). Little gross evidence of a false membrane may be seen. Visible pseudo-membrane is usually observed in small, yellowish-green, fissured patches in the cæcum or lower end of the large gut. Where a false membrane is not visible, the normal intestinal structures are obscured, and the surface of the bowel appears rough, granular and intensely red (Holt). Small hæmorrhages are common. Microscopically, a pseudo-membrane, the result of a fibrinous inflammation, can be seen in parts exhibiting no such condition grossly. The exudate consists of fibrin entangling inflammatory cellular elements and bacteria. The infiltration involves also the mucosa and submucosa, and may cause considerable destruction of the mucosa.

Changes in other organs in any of these forms of ileo-colitis are not distinctive. Degenerative changes are more likely the

more protracted the case, and are especially marked in the kidneys. Probably the commonest and most important inflammatory complication is broncho-pneumonia.

In *conclusion*, there are certain points in the ætiology and pathology of infantile diarrhœas of practical and obvious significance:

1. Bacteria, though the direct and essential cause of the severe and serious diarrhœas, cannot act without the aid of one or more of the indirect or predisposing causes.

2. Heat, as found in summer, though not a direct cause, is by far the most important ætiologic factor of acute diarrhœas of infancy.

3. The proper food for infants is strongly shown in the very low percentage of deaths from diarrhœa in breast-fed infants. The superiority of recently sterilized milk over raw milk has been too often demonstrated to require discussion. During the cold weather, however, the kind of milk seems to have little effect, while in summer the reverse holds true. Over-feeding is as injurious as improper food.

4. The different varieties of acute diarrhœa are not as distinct as the pathology might seem to indicate. In one sense, they may be considered different stages of the one disease which may terminate at any point with recovery or death. This idea conforms well with the pathologic findings in acute gastro-enteric intoxication, in which recovery or death usually takes place so quickly with scarcely any lesions, and those of the more prolonged forms of ileo-colitis in which lesions have had time to develop. The quality and quantity of the poison and the resistance of the child are thus factors balancing death or recovery, as well as the duration and lesions of the disease.

5. A majority of the severe and fatal diarrhœas are preceded by one or more attacks of the non-infectious or milder varieties, and especially is this true of the acute dyspeptic diarrhœa (acute intestinal indigestion), which so often precedes acute gastro-enteric intoxication and acute ileo-colitis. Furthermore, acute gastro-enteric intoxication, when not terminating in recovery or death, may pass on into ileo-colitis. This is all in conformity with the remarks of the preceding paragraph.

6. The pathology and symptoms do not always seem to agree. The severest diarrhœas may show no lesions, and ex-

tensive lesions may have been associated with mild diarrhœal symptoms. This, however, is not the rule, and attention has already been called to the importance of pathologic physiology and chemistry in the process.

7. Special forms of diarrhœa with certain sets of symptoms have not as yet been separately assigned to specific bacteria, but we believe that a great majority, if not all, the severe infantile diarrhœas with fever and blood and mucus in the stool, are due to the acid type of the dysentery bacillus; which fact, with others of like nature perhaps soon to follow, may be of great practical value in the near future.

THE ACUTE DIARRHŒAS OF INFANCY—SYMPTOMATOLOGY.

BY W. H. BIGLER, M.D., PHILADELPHIA.

THE term diarrhœa applies only to the symptom frequent loose evacuations of the bowels, without any reference to their ætiology. The summer months, especially July and August, show an enormous increase in diarrhœal complaints of all forms. We speak of forms of diarrhœa, since there can be recognized varieties of the complaint, both as to ætiology and location of main lesions, and yet it is rare, if not exceptional, to find any form presenting only the typical features usually ascribed to it, unless it be of very short duration. There seems to be a decided tendency under the enervating influence of continued hot weather, aided by circumstances favoring the development of other ætiological factors, to be mentioned later, for a simple diarrhœa from acute indigestion, unless stopped by treatment either by nature or the physician's art, to extend by continuity along the gastro-intestinal tract, gathering strength and virulence as it descends, until we find it merging into the other forms into which the summer diarrhœas of children have been divided.

Acute indigestion may result from faults in the quantity or quality of the food taken, or from a lessening of the powers of digestion, by influencing this through the nervous-system. Of these latter influences the most important are chilling or overheating of the surface, fatigue, exhaustion, fright and dentition.

These factors, either alone or in combination with others, are capable of so depressing the powers of digestion as to cause even suitable food to remain undigested, and in this state to act as a foreign body. It is seldom that we find acute indigestion limited either to the stomach or to the intestines; usually both are disturbed, but not necessarily both in the same degree. The retention of the food in the stomach for longer than the normal period excites vomiting, preceded by nausea, and more or less constitutional effects, varying according to the age and susceptibility of the patient.

Owing to the absorption of the unconverted proteids in the form of albuminoses a state of toxæmia may result, often with alarming symptoms. There may be dulness, stupor, even with contracted pupils, suggesting opium poisoning, or restlessness, excitement and even convulsions. The prostration with weak pulse is often marked. The temperature is usually from 101° to 103° , but may rise even to 104° or 105° . Tongue is coated and appetite lost. Epigastric distention may be present. In susceptible patients the slightest error in diet may be sufficient to bring on a severe attack. In older children these gastric symptoms may be entirely wanting, while in the very young they may be entirely recovered from without any serious disturbance of the intestinal functions, owing probably to the ease with which the stomach in the latter ejects its contents when not suitable or liable to cause mischief. Hence, too, we find that when the attack comes on gradually the gastric symptoms are trifling or entirely wanting, and the symptoms of the intestines predominate. We then have colicky pain referred to the region of the umbilicus, or shifting its location with the progress of the undigested material through the intestines. It is indicated by sharp piercing cries, restlessness and drawing up of the legs. The presence or absence of tympanitis will depend upon the character of the changes undergone by the undigested food. Diarrhœa sets in, the number of stools varying from three or four per diem to as many as twelve or even more. The first stools are fecal, but soon change in character, becoming much thinner than normal and frothy from the presence of gases. In infancy they are at first yellow, then greenish and finally grass green. Blood is not present, nor mucus, in the first few days. Their reaction is acid. Undigested food is

constantly present, on a milk diet, as fat or masses of casein which are carefully to be distinguished, the small yellowish-white masses of fat by their solubility in equal parts of alcohol and ether, and the masses of casein by their greater number, size and whiteness. Iodine will serve to detect any unchanged starch which may occur. In infants, the prostration with rapid pulse often becomes alarming.

Such attacks do not, as a general thing, except in the very young or in delicate children, endanger life, but they do predispose to the occurrence of the more serious forms of intestinal disturbance, to which the name of *summer diarrhæas* is commonly applied. Here it is generally agreed that there are two sources of infection, one from without and one from within, auto-infection, and that in both the altered conditions of the intestines consequent upon disordered digestion are predisposing factors in their production. In the first class of cases the intestinal tract is rendered susceptible to the invasion of pathogenic bacteria, and, in the latter, pathogenic properties are developed in the bacteria normally present.

Clinically we can distinguish *simple gastro-enteric intoxication* and true *cholera infantum*.

Gastro-Enteric Intoxication.—Mild cases with gradual onset are often neglected and passed over as due to dentition, but the stools soon become more frequent, are thin, green, yellow or brown, containing undigested food. They soon become offensive and mucus shows itself. The infants become pale and flabby and lose steadily in weight.

Cases of sudden onset are characterized by restlessness, distress and interrupted sleep. The temperature rises rapidly to 102° or 103° , and even to 106° , with hot dry skin, and usually great thirst. There may be depression or excitement. Vomiting is an early, but not invariable, symptom. First, the food which has been taken hours before is ejected, then mucus, serum and sometimes bile. The characteristic features of the diarrhœa which follows are the amount of gas expelled, the colicky pains preceding the discharges, and the foul odor. Soon the stools become entirely fluid, and may occur as many as twenty times in twenty-four hours, usually remaining offensive. After two or three days mucus appears. The free evacuations seem to be a conservative process on the part of nature, and are,

in many cases, followed by a drop in the temperature and general improvement in the nervous symptoms; and in three to five days, under favorable circumstances, convalescence is established. When such favorable issue does not occur, as in the very young or in delicate infants, the symptoms do not abate, and in one to three days death may ensue from exhaustion, or, where not terminating fatally, it may run on with slight, but continuous, rise of temperature, mucous stools, and wasting, into ileo-colitis.

Relapses are liable to occur and may end fatally. In children over 2 years of age the disease is less likely to result fatally, but in them we frequently meet with eruptions, particularly urticaria.

Holt mentions cases characterized by obstinate constipation instead of diarrhœa, due to toxic paralysis of the intestines, accompanied by high temperature, grave nervous symptoms, and sometimes marked abdominal distention.

In diagnosing between acute gastro-enteric intoxication and acute indigestion, the higher temperature, more marked nervous disturbances, and very offensive stools of the former are most to be relied upon. If the temperature remains high after the third day, we are led to believe that inflammatory changes in the intestinal mucosa have taken place, which, with the appearance of much mucus and even blood in the stools, with continuous pain, will indicate the existence of an ileo-colitis.

Cholera infantum belongs to the acute gastro-enteric intoxications, and the severity of its symptoms is due, not to an extension of the lesions of the intestines downward, but to the intensity of the infection. Cases of this extremely fatal disease occur for the most part in weakly, bottle-fed infants under 2 years of age, chiefly in the months of July and August.

After a slight febrile movement, vomiting and diarrhœa of a severe and exhausting character set in. The stools are very frequent, containing very little fecal matter after the first few have been passed. At first they are greenish, then resemble barley-water with a few flocculi of mucus, and scarcely any odor. Vomiting is incessant, at first emptying the stomach, then bringing up a greenish fluid. Within a few hours the child has been brought to the last stage of exhaustion, and the loss of weight is more rapid than in any other pathological con-

dition in childhood. The face is drawn, eyes sunken, features sharpened, angles of the mouth drawn down, and a peculiar pallor and expression of anxiety mark the whole countenance. The symptoms of nervous irritation marking the first stage soon give place to dulness, stupor, relaxation and coma, or convulsions. The rectal temperature is always elevated (101° – 104° or 105° , in fatal cases), in spite of a clammy skin and cold extremities. The pulse is rapid and thready, often irregular, and finally almost imperceptible. Respiration irregular and frequent, sometimes stertorous. The tongue is usually coated at first, but soon becomes dry and red. Abdomen is soft and sunken. Thirst is insatiable in spite of the vomiting. Of course, very little urine is passed. The whole picture is one of a choleric disease. As the fatal issue approaches, collapse from depletion sets in, and the symptoms first described by Marshall Hall as *spurious hydrocephalus*, or *hydrocephaloid*, are manifested. With convulsions and a rise of temperature to 105° or 107° death is ushered in. The prognosis is always grave, and the disease is an exceedingly fatal one under any form of treatment.

Colitis—Ileo-Colitis—Enteritis Follicularis—Dysentery.—In the gastro-enteric intoxications of which we treated above, death or recovery takes place before any marked lesions of the intestines have taken place; in ileo-colitis, however, occur lesions varying in extent according to the duration of the process, presenting the features of acute catarrhal inflammation, involving only the mucosa; catarrhal inflammation with superficial ulceration; ulceration with inflammation of the lymph nodules (follicular ulceration); acute membranous ileo-colitis.

The mild catarrhal form can at first scarcely be distinguished from an attack of acute indigestion, but soon the stools begin to contain blood and mucus, often preceded by pain and attended with tenesmus. The mucus may be clear and jelly-like or mixed with fecal matter and streaked with blood. The stools are almost without odor. Prolapsus ani is frequent. There is loss of appetite, coated tongue, and prostration, with slow convalescence after about a week of acute symptoms. The first signs of improvement are the disappearance of blood from the less frequent stools, and of the pain and tenesmus. In the severer forms the absence of pain, and of membrane in the

stools, can alone distinguish them from the membranous variety.

Follicular ulceration seldom occurs under the age of 6 months, and can be suspected to exist when, after the sudden onset of an acute gastro-enteric intoxication, we have a continued temperature of 101° with stools containing large quantities of mucus without blood. The stools are seldom more than four to eight in the twenty-four hours, dark green or brown, and offensive. There is a steady loss in weight, and the dry inelastic skin hangs in folds on the thighs. The abdomen may be either moderately distended or relaxed and soft. Tenderness is usually not present. There is total loss of appetite, and the tongue is sometimes dry and brown, with perhaps sordes on the teeth and lips. Thrush is often seen. Recovery is slow and seldom complete.

The *membranous* is the most serious form of inflammation in the intestines met with in children. Its symptoms are obscure, and the only positive diagnostic points are the discovery of patches of pseudo-membrane in the intensely injected rectum, or the presence in the stools of shreds or flakes of membrane. These appear as small, gray, opaque masses, easily distinguished from transparent mucus, if the stools be washed with water. Cerebral symptoms may mask the intestinal disease. The prominent symptoms are, continuous temperature of 102° to 104° , wasting, not rapid, but progressive, frequent stools, usually thin yellow or greenish in color, often containing no mucus or blood, and occasionally almost normal for a day or two. Duration is from one to three weeks. It is very fatal in infants.

The points of difference between the various forms of ileocolitis are thus summarized by Holt: Follicular ulceration is distinguished by its lower temperature, rather subacute course, infrequency of blood in the stools, and by the fact that it is usually preceded by one or more attacks of acute gastro-enteric intoxication, upon which its peculiar symptoms are engrafted. In the catarrhal form the symptoms of an acute inflammation of the colon are usually manifest from the onset—bloody stools, pain, tenesmus and fever. In the membranous variety such symptoms are sometimes seen, but as a rule the local symptoms are not pronounced, while the constitutional symptoms, especially those relating to the nervous-system, are usually marked. The course is shorter and more intense than in the follicular

form. Death often takes place in ten or twelve days during the period of most acute symptoms.

In all the various forms of infantile diarrhœas we find symptoms resulting from the development of lesions in other organs. Thus we may have symptoms of bronchitis, broncho-pneumonia, acute nephritis, or of degenerative conditions of the heart, liver or nervous-system. Some of these lesions are accidental, while others are doubtless the result of the circulation in the blood of toxins derived from the intestines.

THE ACUTE DIARRHŒAS OF INFANCY—TREATMENT.

BY C. S. RAUE, M.D., PHILADELPHIA.

THE rational treatment of diarrhœal diseases of infants must rest upon an understanding of the ætiology and pathology of the various clinical forms of this affection. The therapist will therefore, first of all, divide these cases into two distinct classes, the infectious and the non-infectious.

Non-infectious diarrhœa is a physiological disturbance with a multiplicity of causes. First and foremost stands improper feeding. This is a complex factor which may be resolved into (a) unsuitable food, chemically and physically incompatible with the infant's digestive organs; (b) overfeeding, the quantity being too great, or (c) the intervals between feeding too short. Again, a nursling at the breast may develop diarrhœa if the mother's milk be abnormal in composition. No subject in the practice of pædiatrics is more important than the supervision of the breast milk. At the first indication of a disturbed digestion or failure in the infant's nutrition we should make a clinical analysis of the milk and then so regulate the diet, exercise and environment of the mother as to correct the abnormal condition. Unfortunately, we cannot always be successful in this.

Hot weather is a potent factor in the causation of diarrhœa, and for this reason the management of the infant during the summer contrasts markedly with the winter months. This applies particularly to feeding. Teething is a disturbing element that must also be recognized.

The infectious diarrhœas are, as a rule, serious and require heroic interference. From the chaos of former bacteriological contradictions we now know that, first of all, bacteria may produce toxic chemical products in the milk before it is taken, or within a short time after ingestion, and thus set up choleraic symptoms, defined by Vaughan as acute milk infection. Again, they may induce chemical changes in the gut, with a resulting fermental diarrhœa in which the symptoms will vary greatly in intensity, or we may have a specific infection with bacteria possessing pathogenic properties, in which case an acute ileocolitis results. There is every reason to believe that the majority of cases of genuine ileocolitis are just as specific in character as typhoid fever and cholera. This fact is looked upon by bacteriologists as ultimately leading to the development of a reliable, curative serum, as in the case of diphtheria.

The prophylaxis is plain. Use only pure, clean milk. Boil the water you give the babe. Pasteurization will not make dirty milk wholesome. If chemical changes have occurred in the milk, sterilization will not prevent it from acting as a poison. Another important point in prophylaxis is not to wean an infant during the summer. There are times when this becomes necessary, but whenever at all possible we should wait for the advent of cool weather before taking this step.

Prophylaxis, therefore, resolves itself into regulating the child's surroundings and most rigorously attending to every detail of feeding. In summer no infant should be kept in the city if the parents can afford to take it away. The country is good; the seashore is better. Even after the infant is seized with ileocolitis it is not too late to take it out of the city, and its recovery may depend upon this step.

The poor and overcrowded are particularly unfortunate and for them we have not sufficient charities to give them the cheapest of nature's offerings,—fresh air. Let them keep the children indoors all day in the coolest room, with the shutters closed in to keep out the broiling sunlight, and after sundown and early in the morning take them out to the neighboring squares and parks for an airing. Trolley rides and trips on the river are fortunately cheap and will help to save many a baby's life. When a mother is in dead earnest to save her child the physician has won half the battle.

Bathing is most essential during hot weather. The cool or tepid bath is absolutely necessary when fever is present, and it may be given three to four times a day.

When there are other children about, the sick infant should be isolated to a reasonable extent. The soiled napkins should be put immediately into a bucket containing a solution of chloride of lime. The same preventive measures used in typhoid fever apply here with equal force.

Even though we may be able to obtain milk that has been handled in the most careful, up-to-date manner, and we know it to be clean and reasonably free from micro-organisms, still I believe we are taking chances if we do not pasteurize it in hot weather. An error in the technique in the preparation of the infant's bottles at any one point of the process may result in a fatal case of ileo-colitis.

The nipples should be boiled every day and the bottles filled with hot water and washing soda as soon as emptied. Then before refilling they should be cleaned with a bottle-brush and thoroughly rinsed with hot water.

When maternal feeding is practiced the nipples should be washed before and after nursing with a saturated solution of boric-acid. The infant should not nurse directly from a fissured nipple. Here it is better to employ a sterilized shield or pump out the milk and feed it with a spoon. These methods are preferable to attempting to cleanse an infant's mouth after nursing.

In hot weather infants get thirsty between feeding times and should receive an ounce or two of water, previously boiled and then cooled.

A most important point to bear in mind is that during hot weather an infant cannot, as a rule, take the same strength of fat and proteids it is able to digest at other times. It will usually take the same quantity because it is thirsty, but unless we cut down percentages we may set up a severe indigestion which in turn will invite enteritis. Don't expect a babe to make its regular weekly gain in weight during July and August.

When diarrhoea has developed we must at once make material changes in the feeding. In a breast-fed infant, when there is no fever or vomiting, we may for a day or two continue with the breast milk and wait for the action of our reme-

dies. Should the condition not improve it will be well to alternate a bottle of barley-water with the breast and in that way give the digestive organs a rest. Should the condition get progressively worse in spite of this we must stop the breast entirely.

The reason milk is discontinued in diarrhœa of infants is because it acts as a good culture medium for the micro-organisms that are causing the trouble, and the curds of casein act as an irritant to the mucous membrane. In acute ileo-colitis milk, even if sterilized, is practically a poison.

Barley-water as an all-around substitute food is, perhaps, the most generally useful one. It leaves very little residue in the gut, and starves out the bacteria. Sometimes it disagrees or is objected to by the infant. I have shown in a previous paper (HAHNEMANNIAN MONTHLY, October, 1903), that the particles of cellulose found in barley-water may irritate the inflamed mucous membrane. In such cases I use arrowroot, which is more bland and more acceptable to some infants. In protracted cases the infant will lose too much flesh if we only give it barley-water, and as milk may have to be withheld for several weeks in some cases, particularly in those with follicular ulceration, we must use a more nourishing milk substitute. Here I like to alternate lamb-broth made with rice and then strained, and barley-water containing half ounce of sugar of milk and the white of one egg to the pint. A return to milk must be made cautiously, beginning with low percentages, especially of proteids.

Special Symptoms and Their Management.—*Vomiting* is at times a most troublesome complication, especially in cholera infantum. Lavage of the stomach is the most rational and successful method of treatment to control it. In urgent cases it may be necessary to perform the operation several times a day, and pour a little food into the stomach before introducing the tube. Thin arrowroot-water or albumin-water is best retained under these circumstances. For a full discussion the reader is referred to a previous article upon this subject (HAHNEMANNIAN MONTHLY, 1903).

Often the food will be retained better if fed with a teaspoon than when taken from a bottle. When the infant can take only a small quantity of food at a time we must feed it often, but there is no good in feeding every five or ten minutes, as is sometimes done.

Diarrhœa.—In the early stages of an intestinal infection we will derive much benefit from bowel irrigation. It is rare that the gut efficiently empties itself at once, and if the abnormal intestinal contents are allowed to remain undisturbed for any length of time inflammatory changes in the intestinal mucosa result. It is true the irrigating fluid does not reach beyond the ileo-cæcal valve, but, as the colon receives the brunt of the attack in most instances, we help the case materially by cleansing this part of the gut. Besides, irrigation stimulates peristalsis, and thus aids in emptying the portion of gut above this point.

We often encounter a condition of high fever with frequent, small stools, consisting chiefly of mucus and a little blood. The abdomen is distended with gas and the gut laden with decomposing fecal matter. Here irrigation is imperative. In such cases mild, cautious purgation is justifiable, but I must warn against the indiscriminate and injudicious use of the initial calomel purge. I can recall several cases in which every chance of recovery was spoiled by the superadded irritation induced by calomel.

Persistence of mucus in the stools calls for irrigation, but we must stop this procedure as soon as the bowel begins to empty itself naturally. Many a diarrhœa is kept up by too much mechanical interference.

When tenesmus is persistent we can give the child much relief by injecting a small amount of warm olive oil into the rectum. This exerts a soothing influence upon the inflamed membrane.

High fever is best controlled with the bath. Infants may be tubbed two or three times daily in water gradually reduced from 90° F. to 80° F., while older children are more conveniently sponged with cold water and alcohol. Irrigation also tends to control the pyrexia. The child should be kept in the open air as much as possible.

Collapse requires active stimulation. Brandy should only be used when called for, and not given continually during the illness. In grave cases a hypodermic injection of camphorated oil may be necessary. Five minims may be given to an infant one year old. Camphor suits this condition admirably, and it is best given hypodermatically, as it may otherwise irritate the stomach. Most cases of cholera infantum will need it sooner

or later. Artificial heat must be applied also when the body surface becomes cold or the temperature subnormal. I have at times seen beneficial results from hypodermoclysis, injecting an ounce or more of normal saline solution into the abdominal subcutaneous tissue with an antitoxin syringe. These cases are so grave, however, that often nothing will do the slightest good.

Remedies.—While each case should be individually prescribed for, still we can more or less successfully classify our remedies in accordance with their applicability to the different varieties of infantile diarrhœa.

In simple intestinal indigestion *nux vomica* is most useful. When given in time it will often cut short an attack. Hughes recommends *lycopodium* when the condition becomes inflammatory. Teste speaks of this remedy as a specific in infantile enteritis.

Some infants are predisposed to diarrhœa without any apparent cause. In these cases there seems to be a slight catarrh, such as we find in the respiratory tract. *Pulsatilla* is very valuable here. The diarrhœa accompanying teething is especially benefited by *chamomilla*. In acute gastro-intestinal infection *belladonna* appears most frequently indicated on account of the predominance of fever and nervous symptoms. Even in the later stages, when the bowel symptoms become more prominent, I have found *belladonna* invaluable as long as fever and toxæmia were present.

In the ordinary case of ileo-colitis I find *podophyllin* 2x trit. a good routine remedy. *Mercurius viris* 3x trit. follows, when ulceration takes place. This is indicated by the continuance of the diarrhœa, moderate fever and abundant mucus in the stools. In the dysenteric type of colitis, *mercurius corrosivus* is the chief remedy.

Cholera Infantum.—*Iris* at times exerts a beneficial influence over the vomiting. *Veratrum album* and *arsenicum* are best indicated for the purging, the former when colic predominates, the latter when prostration is most pronounced. *Cuprum arsenicosum* 3x trit. is to be preferred when the nerve centres are involved.

A host of other remedies will be found recommended in the text-books. They all present their individual symptoms and may be required in special cases. Those remedies, however,

most closely associated with the pathological changes taking place in the intestine in infantile diarrhœa, will be found to disappoint least frequently.

Serum therapy has to the present time not yielded the results expected. In the first place, there are two distinct varieties of bacilli of the Shiga type—the acid and the alkaline—and, besides, mixed infection must often be contended with. Again, it is not only the toxæmia that is responsible for the gravity of these cases. Even after we have eliminated this element from the case, we have the intestinal indigestion to contend with, which may in itself cause the ultimate death of the infant. At the present time, therefore, more is to be expected from symptomatic treatment than from serum therapy.

TOPICAL OCULAR THERAPEUTICS.

BY WILLIAM SPENCER, M.D., PHILADELPHIA, PA.

(Read before the Philadelphia Medical and Surgical Society, February, 1904.)

In presenting the subject of topical ocular therapeutics, it is not my intention of covering the whole ground, but rather to offer for consideration some of the newer and most important remedies.

Local therapeutics depend upon important anatomical and physiological laws and is now the order of the day, not alone in ophthalmology, but in all branches of medicine.

Even affections dependent upon a general malady have, with their general indications, local indications of the highest importance.

If marked manifestations show themselves in different organs at the same time, general treatment is the first indication. If, on the contrary, the accidents are absolutely localized to a single point, local applications should be adopted.

This law is better able to be applied to eye maladies. These often manifest themselves as unique phenomena, which we connect with a general diathesis of a more or less problematic character.

Darier says: "Whenever a primary or secondary affection is localized in an organ as important as the eye, it becomes of the greatest consequence to prevent and extinguish the infection locally, if possible, without losing sight of the general indications."

The eye lends itself admirably to local therapeutics, because of the arrangement of its lymphatic system, which is made up of spaces communicating readily one with another. It is well known that atropine, even in weak solution, instilled into the conjunctival sac, is absorbed by the ocular lymphatics and penetrates into the contents of the anterior chamber, and that it acts on the eye itself without interference with the centre of innervation.

The action is local; according to Oliver, "this has been proven by the application of mydriatic—containing aqueous humors to other eyes, and by the action of the drugs after excision of the heart, after decapitation and after isolation of the eyeball.

"Further proof of their local action is shown by their increased activity after removal of the external layers of the cornea. Moreover, local applications never affect the fellow-organ in a similar way."

Ophthalmology by its ocular reagents has furnished pathology and therapeutics with much valuable information. These reagents may be divided into:

1. Modifiers of the muscular tone.
2. Modifiers of superficial sensibility.
3. Modifiers of deep sensibility.
4. Modifiers of the vascular tone.
5. Astringents.

The mydriatics, the most prominent of which are: atropine, scopolamine, euphthalmine, homatropine, cocaine, holocaine, eucaine, ephedrine, mydrine, duboisine, hyoscine and hyoscyamine.

All mydriatics act in the same way, having the power to dilate the pupil. They differ only in the time and in the strength of solution which is required to produce the same result. At the same time they act upon the ciliary body, diminishing and, when applied in sufficient strength, completely paralyzing the power of accommodation, thus rendering the

eye for some time unalterably focused for the farthest point. This far point of distinct vision moves farther from the eye than it would in simple relaxation without the aid of such substances.

The usual form of application of mydriatics is into the conjunctival sac in solution, in ointment, or in gelatin discs that are impregnated with the drug.

Most of these drugs being poisonous, great care should be taken not to apply them too freely or in too strong solution and to close the canaliculi by pressure, so as to prevent the drug from running down into the nose and being absorbed into the circulatory system.

Of the mydriatics, atropine derived from *atropa belladonna* has been used more extensively than that of any other; according to Donders, "the action of atropine begins within fifteen minutes after the instillation of one drop of a solution of four grains to the fluid ounce. The mydriasis is the first obvious result. The diminution of the accommodation begins later. The mydriasis attains its maximum in the course of from twenty to twenty-five minutes, the loss of accommodation at that time being hardly noticeable. Subsequently, it proceeds slowly, attaining its maximum loss about one hundred minutes after the instillation. Total paralysis lasts forty-two hours; after this the pupil becomes smaller and a slight amount of accommodation returns; at first the power of accommodation increases rapidly until the fourth day, but it is not perfectly restored until after the eleventh day."

In normal eyes atropine hardly, if ever, affects the intra-ocular tension. In glaucomatous ones it may produce severe attacks of glaucoma. Great care, therefore, should be taken not to employ atropine in eyes that are predisposed to glaucoma, as in old people with shallow anterior chambers.

Scopolamine, the alkaloid obtained from *scopolia atropoides*, was introduced into ophthalmology by Raehlman; it is considered to be identical with hyoscine, but if so it is free from the ill-effects of that drug.

A simple instillation into the conjunctival sac of a $\frac{1}{10}$ of 1-per-cent. solution will produce a maximum dilatation of the pupil in fifteen minutes, and this complete dilatation will continue for a day and a half, the pupil contracting and becoming

normal in three days. The immediate effects upon the iris are much more rapid than those of atropine, and at the same time the recovery from its effect is more rapid.

Increase of intraocular tension due to the influences of this drug is still the subject of argument.

Homatropine, its effect on the pupil and on the accommodation, is similar to that of atropine, except that it manifests itself more promptly and disappears more quickly. The drug, therefore, has a great advantage over atropine in those cases in which a dilatation of the pupil is wanted for examining the crystalline lens or the fundus.

Patients can bear homatropine very well, and there is no serious danger of constitutional disturbance.

Euphthalmine is employed in a 5-per-cent. solution; one or two drops of this solution suffices to bring about in thirty-five minutes a maximum dilatation of the pupils, which facilitates ophthalmoscopic examination without any marked alteration of sight, aside from a slight dazzling, caused by the diffusion of light penetrating through the dilated pupil; the patient can read, without much difficulty, the print of an ordinary book or newspaper. The action of the drug passes away in two or three hours. Used properly, the drug is the best agent which we possess for pupillary dilatation for ophthalmological diagnosis.

"Ephedrine is an alkaloid which is derived from *ephedra vulgaris*. A single instillation of a 2-per-cent. solution will give rise to almost complete mydriasis, in a normal eye, in about fifty minutes' time."

A stronger solution will cause painful conjunctival irritation and cause a very marked mydriatic action, which lasted four-teen hours.

Mydrine is a synthetic preparation composed of one part of homatropine to one hundred parts of ephedrin. It therefore unites the respective properties of those two agents. It is used in 10-per-cent. watery solution, which dilates the pupil in thirty minutes, and this effect passes away in a little more than three hours. The function of accommodation is scarcely affected.

Cocaine, introduced into ophthalmic practice by Koller, is a valuable anæsthetic, but as a mydriatic has little value. The

pure drug causes only a relative dilatation of the pupil, the reaction of the pupil to light not ceasing. Repeated instillation of a strong solution will cause a paralysis of accommodation, which very soon passes off.

The conjunctiva and cornea become dry and the epithelium is injured, the properties of cocaine that are not favorable to its use as a mydriatic. But if one were to take the precaution of keeping the eye closed, after instilling the solution, these corneal complications would not occur.

The alkaloids duboisine, hyoscyne and hyoscyamine are very powerful mydriatics. They act more energetically and promptly than atropine, but they possess marked toxic properties, which tend to limit their employment.

Myotics are those substances which are capable of producing a myosis, that is, a narrowing of the pupil, and also a spasm of accommodation if used in sufficient strength.

When introduced into the conjunctival sac they pass through the cornea into the anterior chamber, and act on the iris and the ciliary body without the intervention of the central nervous-system. Like mydriatics, myotics act more promptly and more energetically on the pupil than on the ciliary body. The effect on the accommodation ceases sooner than that on the pupil. At the time of maximum contraction the pupil becomes smaller than in normal condition with the strongest light. This is associated with the most powerful accommodation, objects appear much less brightly illuminated than to the normal eye. When myotics are used, it is found that, in proportion to the feebleness of the impulse required to accommodate for a certain distance, objects appear enlarged.

Eserine, derived from *physostigma venenosum*, is the most powerful and principal myotic in use.

Pilocarpine, discovered in 1875 by Hardy, is an alkaloid derived from the leaves of *jaborandi*. On investigation, the action is similar to that of eserine, but much weaker.

Muscarine, an alkaloid derived from *amanita muscaria*, is not reliable as a myotic.

A new myotic, *arecoline*, brought forward by Merck in 1894, who claims that it will keep better than eserine, acts more powerfully than pilocarpine and is much cheaper. The more intense and rapid action of arecoline may be turned to advantage

in certain cases where eserine has not given the result expected from it.

Other myotic agents, as inhalations of nitrogen protoxide, hypodermic injections of morphia, and applications of nicotine, conium and extract of digitaline, are useless in ophthalmic practice.

We now consider that most important class of medicaments which relieve pain, and on that account are of interest not only to the practitioner, but, above all, to the patient. These are called ocular anæsthetics and analgesics, and their discovery constitutes one of the greatest therapeutical conquests in modern eye work.

Prior to the discovery of cocaine, the only local anæsthetics were belladonna and opium and its derivatives. Now we have cocaine which calms almost instantly superficial pains, but the duration of this analgesia is very short, about twenty minutes. A drop of a 2- or 4-per-cent. solution of cocaine placed in the eye provokes, at first, a smarting sensation. The smarting, however, does not last long, and is followed by a sensation of warmth in the eye. The eye appears larger. The palpebral fissure is wider open and the eye is prominent, a little thrust forward. One can then touch the cornea without giving rise to pain, and practice many operations without the patient betraying the least suffering.

At the end of about twenty minutes the drug causes a moderate dilatation of the pupil. This is one of the inconveniences of cocaine, but the slight mydriasis enables us to make ophthalmoscopic examinations which would otherwise have been difficult.

This mydriatic action of cocaine also enables a simple extraction of cataract without iridectomy; but it has the grave inconvenience of provoking, among predisposed subjects, attacks of glaucoma. Certain predisposed subjects experience, after simple conjunctival instillations, uncomfortable nervous symptoms, such as agitation, palpitations, loquacity, subdelirium and dyspnœa.

This toxicity of cocaine has induced chemists to find other substances possessing similar anæsthetic properties, but devoid of toxic properties.

Among the substitutes we have *tropacocaine* which promised

much; it produced a prompter and more profound anæsthesia than cocaine, the mydriasis and the toxicity were less marked, but it was more irritating and much more painful.

Eucaine, the toxicity of which is but half that of cocaine, it possesses the anæsthetic properties without dilating the pupils, and is, moreover, easily sterilized. On the other hand, it gives rise to marked hyperæmia, and a more severe smarting than that of cocaine.

Holococaine has an anæsthetic property at least equal to that of cocaine; it does not dilate the pupil; possesses certain antiseptic properties; and can without detriment be sterilized by boiling.

But holococaine is much more toxic than cocaine, cannot be employed as a subconjunctival injection, or at least only in extremely diluted solutions.

Upon the whole, we may say that cocaine, used with precaution and in moderate doses, still remains the most serviceable local anæsthetic. For him who understands its faults and knows how to avoid them, cocaine is able to render inestimable services in obtaining the local anæsthesia necessary for all surgical interference with the eyeball or eyelids.

But why should we not succeed in calming, by simple local applications, ocular pains caused by different pathological states of the eye, whether superficial or deep?

Many efforts have tended toward this end, and in the painful affections of the eye, therefore, a new class of local analgesics is the order of the day.

This word analgesic may appear to be superfluous, since often anæsthesia implies analgesia; but its difference from anæsthesia is easy enough to determine. An eye that has become analgesic suffers no longer, although it feels readily enough the contact and the pain when it is touched or pinched; whilst an anæsthetic eye is deprived of all peripheral sensation, yet may continue to suffer from a deep-seated pain. In a few words: an anæsthetic eye allows one to operate without pain; an analgesic suppresses a pre-existing pain without destroying sensibility.

The analgesics which I will speak about are acoine and di-nine. Acoine is a cocaine that has a more durable and lasting action. It is a medicament discovered by Heyden's chemical laboratory at Radebeul, near Dresden.

Its anæsthetic properties and the therapeutic uses were discovered by Darien and Hesse by a series of experiments. In man it acts only when there exists a solution in the continuity of the corneal or conjunctival epithelium; but its analgesic action may last several hours, so that its use is valuable in burns of the conjunctiva and traumatic erosions of the cornea.

Experience has proved that acoine is much less toxic than cocaine, and perhaps may be used in less concentrated form. Its action is more rapid and lasts longer. It has no action on the pupil. The solutions, which are very antiseptic, should be kept in the dark.

It is used in solution, dissolved in a normal salt of different strengths, varying from 1 part to 1000 parts and as strong as 1 part to 50 parts, the anæsthetic effect produced by the weaker solution lasting for fifteen minutes, while that of the stronger solution lasting about twenty-four hours. The stronger solution irritates the eye a good deal, but gives rise to no permanent trouble.

The dilute solutions are quite exempt from all inconvenience, and provoke an anæsthesia as complete as can be wished. It is also possible to combine with acoine, and make subconjunctival injections with all liquids, even the most irritating, including amongst them iodine, mercury, etc.

Acoine should therefore give in man an anæsthetic action of a very marked kind, which lasts three or four hours or more, longer than that produced by cocaine.

In finishing with ocular anæsthetics and analgesics we have one more, dionine, which possesses not only a profound and lasting analgesic power, but has also a very favorable action upon a morbid process itself; it facilitates the dilatation of the pupil when this is slow under the action of atropine; it assists the resorption of pupillary exudations; and, lastly, it diminishes tension in cases of glaucoma.

Dionine is the hydrochloride of ethyl-morphine. It occurs as a white, crystalline powder, of a moderately bitter taste. It is freely soluble in water.

About 1880 Grimaux, a Frenchman, was the first to bring forward the merits of ethyl-morphine, as it is a homologue of codeine.

But we must credit Wolffberg, of Breslau, if not with the

invention of diodine, at all events its application to the therapeutics of the eye. It is used in 5-per-cent. aqueous solution, which is instilled into the eye.

The irritation, when it comes into contact with the conjunctiva and the cornea, produces redness and very marked vascular dilatation with abundant lachrymal secretion, often accompanied by sneezing; the lymphatic channels then become so distended and dilated as to attain ten times their original dimensions. The conjunctiva thus becomes enormously swollen, forming a great pad around the cornea, and having the characteristic aspect of conjunctival œdema or chemosis. The eyelids may be swollen, and the eye is sometimes so puffed up as to make its state appear alarming, especially in elderly persons with embarrassed circulation, but there is no danger to be apprehended.

It is advisable never to prescribe dionine for home use before having personally tested the sensibility of the subject, for if one chance across a patient who has a violent reaction, he will probably be so frightened that one runs the risk of never seeing him again. The lymphatic stasis which manifests itself by the production of chemosis, sometimes of a marked character, appears to take a share in the efficacy of the medication, for the longer and stronger the chemosis, the more pronounced is the analgesic action.

The effect is so profound and of such long duration, putting the whole eye to sleep, so to say, for a sufficiently long period, that if used at the painful crises the deep ocular pains proceeding from inflammatory conditions can be calmed without having to resort to morphine injections or other anodynes.

It is difficult to explain how ocular analgesia is brought about by dionine. But, until such times as experiment has given us a precise explanation of the way it acts, it is enough for us to know that we are now in possession of a powerful ocular analgesic, often capable of calming for hours the most violent pains of iritis, irido-cyclitis, glaucoma, ulcers and keratitis.

Having finished with ocular anæsthetics and analgesics, I will take up an agent that modifies the vascular tone, extract of the suprarenal capsule, the most perfect type of vaso-constrictor, the effect of which is exactly the opposite to that of

dionine. The introduction of suprarenal extract into eye work is credited to Bates, of New York, during the year 1895.

The preparation now almost exclusively used is the solution, adrenalin chloride, 1 to 1000 in normal salt solution, made by Messrs. Parke, Davis & Co. A drop of the adrenalin solution placed upon the normal conjunctiva produced in two or three minutes a profound anæmia of the whole surface of the eyeball. One then fails to see a single conjunctival vessel; the sclera becomes of a brilliant white; and the eye assumes a cadaveric aspect. This anæmia lasts from one to two hours. The more hyperæmic the eye, the shorter the duration of this effect; but there is no congestion of so intense a character that will not yield for some moments if the applications are repeated two or three times.

Repeated instillation of sufficient doses of adrenalin bring about a marked mydriasis. It acts directly upon the vessels of the iris and ciliary body, which it contracts strongly. As a diagnostic means, adrenalin is a valuable reagent. When the eye is extremely hyperæmic, one may be puzzled to know the cause of this intense conjunctival injection; a drop or two of adrenalin gives us in these cases rapid and precise indications. If the entire surface of the conjunctiva becomes pallid in a uniform and regular way, one has to do with a conjunctival affection. If granulations exist they take the aspect of old granulomata, allowing their characteristic contents to shine through. If the case is one of conjunctival or pericorneal pustules, these lesions appear prominent against the anæmic surface of the conjunctiva.

But the effect of adrenalin is still more interesting in cases of episcleritis or of incipient iritis, while it is very useful in making an early and positive diagnosis; conjunctival hyperæmia disappears first, and then one may see for several minutes the deep hyperæmic circle surrounding the cornea, which is characteristic of iritis, persist by itself. If this profound hyperæmia, on the contrary, is localized to a point in the sclerotic, episcleritis is present. Adrenalin has not yet been found a specific application, or at least an exclusive case for any eye affection. On the other hand, its indications are numerous, and it is able to render service in a crowd of eye affections, so that it not only serves for diagnosis, but also for treatment. In

every case where a pronounced conjunctival hyperæmia is able to clog treatment or operation, it is very easy to make it disappear.

It is a well-known fact that cocaine has scarcely any anæsthetic action upon markedly congested eyes; by dropping a few drops of adrenalin into such an eye, you can remove the congestion and get enough anæsthesia, even in the most difficult cases.

The vaso-constrictor action of suprarenal extract has been taken advantage of for the purpose of arresting or diminishing hæmorrhage after operations.

When these operative procedures are likely to be bloody, the eye is submitted to the action of the suprarenal extract before the operation, thus preventing hæmorrhage; indeed, it is with difficulty that one obtains a slight oozing of blood.

We now come to the astringents, or the agents which are capable of modifying the secretions of the conjunctiva.

Catarrhal or purulent secretions from the conjunctiva are often provoked by the presence of infectious micro-organisms transported by contact from one individual to another.

Modifiers of secretion, therefore, must be agents capable of stopping the development of these infectious elements, while they have at the same time a stimulating and tonic influence upon the cells. The principal astringent and antiseptic preparations are the salts of silver, mercury, zinc, lead and copper. Nitrate of silver has been recognized as almost a specific in all the secretory affections of the conjunctiva.

By understanding how to apply it and by judiciously varying the strength of the solutions, we are able to obtain perfect therapeutic results in most forms of conjunctivitis.

Opinions are almost unanimous that in purulent ophthalmia, no method has brought about so many cures as cauterizations with solution of nitrate of silver.

It has a powerful bactericidal action, which is due to its base silver, of which it contains 65 per cent., but it has also a violent caustic action due to its contained nitric acid.

It causes a desquamation of the epithelium of the conjunctiva, allowing the conjunctiva, thus deprived of its superficial epithelial layer, to appear of a lively red hue.

This exposure of the conjunctiva is one of the most impor-

tant causes of pain, and it may be even seen when the feeblenesses are employed. The action of silver nitrate, therefore, is too caustic; it destroys the epithelium without making its effects fully felt upon the deep layers of the conjunctiva.

It is that fact that has incited to the search for new silver combinations, which shall possess the same antiseptic properties and be less irritant and less corrosive.

The chemical laboratories have therefore put forth so many new organic combinations, such as argentamine, largin, nargol, itrol, protargol, actol, etc., that the practitioner, though he be not the first by which the new is tried, nor yet the last to lay the old aside, is troubled to make their acquaintance quickly enough to be able to appreciate them at their true value.

Argentamine is a colorless and alkaline solution of silver phosphate in ethylene-diamine, containing 6.35 per cent. of silver.

The ethylene-diamine, which enters into the composition of argentamine, is an organic base having little caustic power and possessing the peculiar property of re-dissolving precipitates formed by salts of silver in contact with tissues. The application of a weak solution of argentamine to the conjunctiva produces at once a milky precipitate, which proves that the product was very easily decomposed by the tears. The precipitate, however, redissolves in an excess. It is, therefore, very important to apply the medicament more generously; in this way the penetration into the depths of the anatomical elements is favored, where it exerts its powerful germicidal action. When it is applied to the conjunctiva it has been demonstrated that it is much less painful than silver nitrate; its power of penetration, one of its prime qualities, is greater; unlike silver nitrate it does not cause a desquamation of the epithelium of the conjunctiva; and, according to Schaeffer, he found that the antiseptic action was more pronounced than that of silver nitrate when studied with various micro-organisms.

Other salts of silver which have been equally praised in recent times as most powerful antiseptic and anti-gonorrhœic agents are:

Arjoline, a combination of silver and caseine, containing 4 per cent. of silver, forming a crystalline salt, soluble in water.

Actol, or lactate of silver, is a salt soluble in water and albu-

minous liquids. Its antiseptic power is extremely great; a watery solution of this salt will kill all pathogenic microbes in five minutes, and a solution of 1 : 80,000 hinders the development of bacteria.

Nargol, the nucleinate of silver, has been praised, but the trials with this salt in ocular therapeutics are not yet advanced enough to justify any statement.

Itrol, or citrate of silver, is a salt in the form of an impalpable powder, is not at all irritating, and can be easily applied by insufflation.

It is claimed for this salt that if a patient will tolerate it well, that a cure of ulcerated cornea and catarrhal inflammations of the conjunctiva can be produced by a single insufflation and an occlusive dressing.

Unlike the American Indian, who, from time immemorial, when he had the opportunity, always preferred to eat his dessert first, I now come to the most practicable and the last silver salt :

Protargol, which combines the greatest number of advantages with the fewest inconveniences. It is a combination of proteine and silver, containing 8.35 per cent. of silver. It is a yellowish powder, readily soluble in water. It makes a perfectly clear solution of a yellow color. On the addition of albumin, sulphates or alkalies no precipitate is formed. These important qualities, when it comes to treating affections of the eye, render signal service in ophthalmology.

Neisser does not hesitate to consider protargol much more active and efficacious than any of the other salts of silver, and says : "Never by any other treatment have I obtained results as good, as rapid, and as certain as with protargol."

By its marked powers of penetration, by its antiseptic action similar to, but more energetic than, those of silver nitrate and argentamine, and especially on account of its perfect harmlessness and the little irritation it causes when in contact with the conjunctiva and cornea, it deserves to be tried systematically in all forms of conjunctivitis in the treatment of which silver nitrate has heretofore been employed. To adduce the experimental proof of the deep germicidal action of protargol, innumerable clinical observations have shown evidence of this action upon the living tissues, and that should be proof enough for the clinical observer. The action of silver nitrate is caustic

and superficial; it destroys the membrane at the same time as the microbes; protargol, on the contrary, has a profound germicidal action without being so caustic. Giving the last named, therefore, unbounded advantages over silver nitrate, and without fear of contradiction, whoever will employ protargol will find that it can advantageously replace silver nitrate.

Protargol is soluble in all proportions of water; should be kept from the light; by exposure it becomes darker, thicker and less active.

It is used in almost any strength. I use it myself in 10-per-cent. solution, and prescribe it for home use in 5-per-cent. solutions.

The instillations may be made by the patient or by his attendant three or more times a day. The application will be painless, will not be decomposed or precipitated by the tears and the mucous membrane, but will become intimately mixed with the ocular secretions, penetrating to the bottom of the retro-tarsal folds and infiltrating even the depths of the epithelium.

The superiority of protargol is so incontestable that one may ask why it is not universally recognized. The explanation is that nothing is so difficult to root out as habit and routine. The practitioner, accustomed for years to the management of nitrate of silver, will renounce with difficulty the assistance of a friend so sure and faithful. How many times have we not seen purulent ophthalmia, treated by nitrate of silver, have a fatal issue in the hands of practitioners who, lacking confidence or will, have allowed themselves to be outflanked by unfavorable circumstances? It will be the same for those who employ protargol without conviction or who use bad solutions.

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LEPROSY.

BY WALTER SANDS MILLS, M.D.

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(Clinical Lecture delivered at the Metropolitan Hospital during the Practitioner's Course.)

I HAVE to show you to-day three cases of true Leprosy, sometimes called *Lepra Arabum* or *Elephantiasis Græcorum*.

Leprosy is one of the oldest of known diseases, although in ancient times it was sometimes confused with other affections resembling it more or less closely. At present it is endemic at certain places on all continents and on many islands. In Europe it is found in the Scandinavian countries, in Spain, Portugal, France, Italy, Greece, and Russia. It is endemic in certain parts of Asia, Africa and South America; also in the Sandwich Islands. On this continent it is endemic in Mexico. In the United States cases are found among the Scandinavian settlers of the Northwestern States, in Louisiana, and, in a very few isolated cases, in some of the larger cities.

New York always has a few cases. They have been isolated at various places at different times. Since December 15, 1902, all the cases of leprosy that were public charges have been sent here to the Metropolitan Hospital. On that date three cases were sent to us, two Chinamen and one Dane. In June, 1903, another Chinaman arrived. In March of this year one of the original cases died, apparently of exhaustion. He was up and about until a week or ten days before his death. He became weak, took to his bed, and finally died.

The specific cause of leprosy is the *bacillus lepra*, discovered by Hansen. The exact mode of infection is not known.

There is some doubt as to whether or not the disease is hereditary. Healthy children have been born of leprous parents and have remained healthy. On the other hand, cases are often found in blood relatives. Such cases have usually been subjected to the same influences as those who contracted the disease, so it is impossible to say how much is due to heredity and how much is due to environment.

That the disease is transmissible from person to person seems to be the consensus of opinion. Introduced into the Sandwich Islands about 1860, leprosy spread with considerable rapidity, affecting nearly 5 per cent. of the entire population in a very few years. The people were notorious for their loose and uncleanly mode of living. Under the circumstances, it was not surprising that it did spread. It is not freely transmitted, however, and where leprosy is not endemic, no physician or attendant in charge of cases has been known to contract the disease. One of my patients, the Dane, tells me that in Santa Cruz, where he lived for twenty years, he knew of many instances where only one member of a family was afflicted with leprosy. On account of inability to perform hard work, the leper member did the cooking, washed the dishes, and was most intimately associated with the others in the household, yet none of the others was affected. It is probable that the disease is only transmissible through abrasions in the skin or mucous membranes, and then very rarely. The cases that have developed in England and in the United States—except in Louisiana, where it is endemic to a slight extent—have been either in natives of leprous countries, or else have been in persons who have sojourned in leprous countries for a considerable length of time.

Nearly all of the victims live in bad hygienic surroundings and are poor. Most of the places where the disease is endemic are on or near the sea-coast, and the inhabitants live largely on dried and decaying fish. Years ago the theory was advanced that leprosy must be caused in some way by a fish diet. Recently, Jonathan Hutchinson, of England, has come out very strongly in favor of this idea. He paid a visit to many countries where leprosy is prevalent and found the conditions very similar. He even goes so far as to indict the Roman Catholic church for requiring its adherents to eat fish on Fridays, and asserts that the Catholic converts living side by side with other religionists are most often affected.

At any rate, the disease does not seem to gain a foothold in every place where the cases are numerous. For example, P. S. Abraham, who wrote the article on leprosy in Allbutt's *System of Medicine*, states that Hansen made a special trip to this country to trace the one hundred and sixty known Norwegian lepers

who had settled in our Northwestern States. Not one of their descendants to the great-grandchildren had ever developed the disease. He also says that he has had for years a man and a woman under his care for leprosy in England. The man has had four children since his disease appeared and the woman two. None of the children, nor the wife of the man, nor the husband of the woman, has ever shown the slightest symptom of it.

The period of incubation is long and uncertain. Cases have developed after an absence of ten, twenty, even forty, years from all known sources of infection.

There are ill-defined prodromal symptoms that may last for months. One of my cases, preceding the development of skin lesions, had lost some fifteen pounds in weight, and was weak and drowsy most of the time. Owing to their limited mastery of English I have been unable to get the early symptoms of the other two. As Duhring notes, in countries where leprosy is endemic, these long continued prodromata would excite suspicion. In this country, where leprosy is not endemic, such symptoms as loss of weight, lassitude and drowsiness would be put down as due to some other cause. We might get them in incipient tuberculosis or, as Cowperthwaite suggests, we might think of malaria.

There are two well-marked types of leprosy, the tubercular or nodular, and the non-tubercular, macular or anæsthetic; characteristic cases are seen of each type. Many cases, however, are mixed, and present features of both. It is said that all tubercular or nodular cases are macular at first, whereas all macular cases do not become tubercular.

CASE I.—The first case that I have to present is of the tubercular or nodular type. The patient was born in Denmark and is 57 years old. He spent twenty years at Santa Cruz in the West Indies. While there he was overseer of a plantation. He had many business dealings with lepers and was associated with them more or less intimately. In 1891 he came to the United States where he worked as gardener. For a year or two before skin symptoms showed themselves he lost weight and was weak and drowsy. He was troubled with rush of blood to the head on stooping, and with swelling of the feet. In 1895 he noticed a brownish spot on the outer side of his

left knee. This was followed by the appearance of nodules on the forehead, then on the cheeks, and underneath the chin. He was treated for various things including syphilis. After a time he became a patient at the New York Skin and Cancer Hospital where he remained for two years. While there he came under the observation of Dr. George Henry Fox, Professor of Skin Diseases at the College of Physicians and Sur-



CASE I., TUBERCULAR LEPROSY.—The thickening of the integument of the face, the enlargement of the ear, and the discolorations on the chest and arms show very plainly. The skin is much thickened wherever discolored.

geons, who had him photographed for his "Photographic Atlas of Skin Diseases." In his notes on the case, Fox says:

"During his first year in hospital he took chaulmoogra oil at frequent intervals, increasing the dose up to one hundred drops daily, when nausea usually compelled the cessation of its use. Nux vomica was then substituted until the stomach could again tolerate the oil. Under this treatment his general health improved, his strength and weight increased, and the lumps upon

the forehead and the macules upon the trunk almost disappeared. The nasal obstruction and difficulty in breathing, of which he had complained, was relieved, and his eyesight improved to a notable degree. Though not cured he was finally able to leave the hospital and to obtain work as a gardener."

After leaving the Skin and Cancer Hospital the patient worked for about a year. At this time he began to be troubled with pains in the eyes and neuralgic pains in the head. He also had what he thought to be toothache, but a dentist assured him his teeth were all right. In 1901 he became a patient in the City Hospital at the other end of Blackwell's Island. Again he improved enough to return to work. After a few months he once more entered the City Hospital, and on December 15, 1902, was transferred to this hospital with the other lepers, where he has been ever since.

About two years ago he lost the sight of his right eye, and about six months later that of the left. This quite a common symptom of leprosy and may be due to infiltration or ulceration. This patient is now practically blind, only being able to distinguish between daylight and darkness.

He complains that his hands and feet feel cold, and the tips of his fingers and toes feel sore. His feet feel heavy, swollen and uncomfortable. He also complains of a catarrhal condition of the nose and throat, and of the stomach.

In looking at this patient you see the dark-brown color of his face and hands, and the tumefaction of the skin. The skin of the whole face is much thickened, the ears are considerably enlarged and somewhat misshapen. This thickening of the skin gives the disease one of its synonyms, elephantiasis græcorum. Recently the patient has complained of his throat. It may be that the disease has invaded the mucous membranes to a slight degree. On the body the skin over the breasts is discolored and thickened, and there is also a spot on the abdomen. The skin of the back is almost completely discolored and thickened in one great homogeneous plaque. The arms, forearms and hands are in the same condition. Also the buttocks, backs of the thighs, fronts and backs of the legs, and feet. The finger nails and toe nails are thickened and look like stumps. The patient complains of a coldness and numbness in the hands and feet, and a feeling as though they were

asleep. The ends of the fingers and toes are sore, and yet sensation is somewhat lessened. This loss of sensation is so great that the patient has some difficulty in buttoning and unbuttoning his clothes. At all places where the skin is discolored you can feel that it is raised and thickened.

A couple of weeks ago the ends of some of the toes developed what appeared to be bullæ. Now they look dry and the skin is coming off. You see the toes as a whole are swollen. At one time the patient had an ulcer on the ball of the right foot which lasted for two years or longer. The skin is broken again now. The ulcer finally healed after the patient had soaked his feet daily for some weeks in salt water taken from the East river.

The general condition of this patient has improved considerably since he came to the Metropolitan Hospital. The late Dr. H. M. Dearborn prescribed arsenicum iodide. Since March 15th he has had arsenicum album.

CASE II.—The second patient is a Chinaman, 33 years of age. He has been in this country ten years. About three years ago he first noticed an eruption on his face. After seeing various physicians with varying diagnoses, he went to the City Hospital, September 26, 1902, where leprosy was diagnosed. He came here on December 15th of that year. The details of his history have been hard to get on account of his lack of knowledge of the English language.

As you see, this patient's face is more of a reddish color. There is some tumefaction about the lobes of the ears, a favorite place for it to begin. The skin over the cheek bones seems to be a little raised. The front of the body is free from lesions. About the small of the back are some raised brownish spots, of more or less irregular outline, and an inch or two across. The back of the arms and forearms present the same raised brownish spots. The hands are dark-brown in color. The nails are long, Chinese fashion, and apparently well cared for. The brownish raised appearance of the skin is seen again on the buttocks, the back and front of the thighs and knees. On the legs the brown discoloration appears in irregular spots down the front of the right one, and in red patches on the left. The toe nails have the same characteristic short stump-like appearance as in the first case. The great toes have ulcerated.

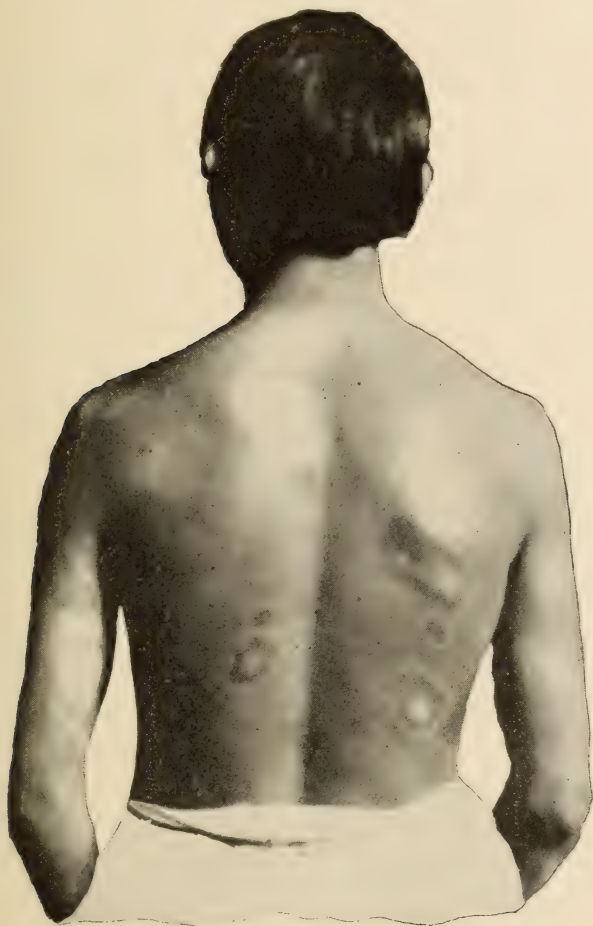
This case is, in my opinion, of the tubercular or nodular variety of leprosy, but in an earlier stage than the first case. All of the discolored areas of the skin can be felt to be thickened and raised. There are no subjective symptoms.



CASE II., TUBERCULAR LEPROSY.—The tumefaction about the face shows very well in this picture. Also the discolorations on the arms—the skin is thickened and the discolored spots raised wherever they appear.

This patient was placed on lachesis and is still taking it. His condition has improved since coming here. He was a bed patient at first and one foot was drawn up. This contraction is improving.

CASE III.—The third patient is a Chinaman, aged 25. He has been in this country five years. His first symptoms developed three years ago. His early history is unknown, except that both of these Chinamen deny that any cases of leprosy



CASE III., NON-TUBERCULAR LEPROSY.—The maculae show very clearly in this picture. Some of them can be seen to be fading out in the centre. The skin is perfectly smooth in this case.

existed among their relatives. This patient came to us in June, 1903, and his disease is at present of the non-tuberculated or macular variety.

The forehead, cheeks and chin present some slight discolorations. The front of the body presents a few small spots. On

the back are a number of larger ones, quite brown. Some of them are fading out in the centre, one of the characteristics of the disease. Other spots are liable to appear as the present ones disappear. The buttocks present maculæ; also the fronts of the thighs and the legs. The skin is perfectly smooth and not raised at the points of discoloration as in the other two cases. The hands are dark. In this patient the fingers are long and thin. The little finger of each hand is distorted, the distal phalanges pointing toward the palm of the hand and toward the middle finger. This deformity gives the fingers a claw-like appearance.

This patient is on sepiæ. He is improving.

These three patients are the most cheerful patients in the institution. Whether this is a characteristic of the disease or not, I do not know. I was told by a person who had visited the lepers at various colonies that, next to the Southern negroes, they were the most cheerful people that could be found.

The diagnosis of typical leprosy is not difficult. In its early stages, however, it may be mistaken for some other disease. It is more often mistaken for syphilis, perhaps, than for any other affection. The two diseases may run side by side in the same patient. If only one of the two exists, the diagnosis is made clear by the unfolding of the symptoms.

Dearborn says, that in lupus the nodules are smaller and more circumscribed, and do not produce the extensive thickening of the brows and ears that leprosy does.

In leucoderma or vitiligo the skin functionates normally, the change in color being the only evidence of disease. In leprosy the skin may become thickened, and the maculæ become either hyperæsthetic or anæsthetic.

The prognosis of leprosy is not good. The disease runs a course of eight to fifteen years. A few recover, a good many survive the active stage of the disease and live for years with more or less deformity. Abraham relates some interesting facts about the colony of lepers at Trinidad. About half the deaths there are caused by complications due to the invasion of the disease into the larynx and other organs, to exhaustion resulting from pyæmia and gangrene,—in short, to extension of the disease to vital organs or to exhaustion following such extension. About 30 per cent. die of kidney complications and about 20 per cent. die of tuberculosis.

A patient suffering from leprosy, placed in good sanitary surroundings and properly cared for, improves. Removal to a benign climate is always of benefit. The diet should be generous and nutritious. The various functions of the body need to be investigated and regulated.

The most popular drug treatment now in vogue in the old school is chaulmoogra oil. This is a fixed oil made from the seeds of the *Gynocardia odorata*, an East Indian tree. Several cures are reported from its use internally and externally. The first case shown you, according to Fox, was much benefited by it a few years ago. Internally, chaulmoogra oil is given in capsules. Locally, it is used one part chaulmoogra oil to fifteen parts sweet oil.

Of homœopathic remedies, many may be indicated according to the symptoms. Dearborn reports a case cured by hydrocotyle without local treatment. The remedies used in the above cases have already been mentioned.

THE MECHANICAL AND SUBCUTANEOUS INJECTION—TREATMENT OF HERNIA.

BY C. FLETCHER SOUDER, M.D., PHILADELPHIA.

(Read before the Germantown Homœopathic Medical Society, May 16, 1904.)

UNTIL recent years hernia was considered to be incurable by most physicians, therefore very little attention was given the matter; but as the curative measures at our disposal are becoming more and more effective and safe, the subject is beginning to receive the recognition merited, and opposition to any form of treatment is growing less.

While all physicians realize the frequency of hernia, the annoyance and suffering it causes, and the liability of any hernia to become strangulated, it is doubtful whether they fully realize the numerous ills it produces.

As the pain from hernia is so frequently reflected to distant points, it is the cause of many unaccountable and persistent complaints. Cough, dyspepsia, constipation, diarrhœa and urinary troubles are frequently the results of hernia. It is constantly being mistaken for heart trouble, colic, cramps,

rheumatism, Bright's disease, uterine and ovarian troubles, peritonitis and appendicitis. Patients with an irreducible umbilical hernia generally experience difficulty when in a reclining position. The pain from inguinal hernia is commonly referred to the umbilical region. Hernia in children is the cause of much ill-temper and supposed attacks of colic.

When patients complain of persistent pain in any part of the abdomen, if the diagnosis be obscure, it would be well to examine for hernia. Do not accept patient's assurance as conclusive that they have no hernia, as most of you will bear me out that an examination often shows that a hernia exists of which the patient is not aware.

When there is marked evidence of a beginning hernia, it is a mistake not to advise patients to wear a support or truss with light pressure.

The tendency of a hernia is to become rapidly worse if not properly supported.

A hernia that is permitted to remain down is very liable to become irreducible, and in my opinion, when such a condition is allowed to occur, it is more liable to become strangulated.

As a rule, a truss which exerts sufficient pressure to do its work well will cause marked absorption and atrophy of the parts where the pads rest, if worn for any length of time. In my opinion there would be more cures from a truss alone were it not for this fact. When a cure is effected by such means, the structures are generally in such a weakened condition as to again give way when all support is withdrawn.

So general is the opinion among the laity that hernia is incurable, and that a truss is the only relief obtainable, that the vast majority of those so afflicted do not even consult a physician, but go direct to a truss dealer. I was told at one of the largest truss establishments that not one customer in a dozen comes to them through a physician. Such a condition is unfortunate, but it is due largely to the fact that many physicians simply refer their ruptured patients to truss dealers and afterwards pay no further attention to the matter.

While truss dealers are as honorable and honest as any other class of men, owing to the numerous sources from which trusses are obtained and that trusses are fitted on mostly by men having little or no knowledge of anatomy, most trusses are applied without due regard to the kind of hernia to be dealt with.

A few years ago a physician came to me to be treated for hernia. The day before, he had been fitted with the French pattern, single truss, by a man who supplied three large hospitals of this city with trusses. Upon examination the hernia was found to be constantly in the canal when he stood up, but could not be forced below the external ring, except by forcibly coughing, owing to the shape of the pad. I then accompanied him to the truss establishment and asked that a suitable truss be applied. The dealer became angry and said that the truss was a proper one. After convincing the dealer that he was wrong, he said to me, "Doctor, my father before me was a manufacturer of trusses, and I have been fitting trusses for twenty years, but I never knew anything about the anatomy of those parts. I supposed that when I could not see or feel any bulging below the pad that the truss was doing its work properly."

A man who manufactures and fits trusses informed me recently that most of the trusses supplied to the trade are of the cheapest grade possible, and that they are of little benefit as a protective measure. He concluded the remark by saying, "Were it not for the great demand for cheap trusses, all of the truss trade could be supplied by a few houses." He spoke of one man whom he had fitted with a truss who had on hand thirty-three trusses, not one of which was suitable for his needs.

From my experience, most of the patients who have consulted me were not wearing a truss which was at all suitable for them. I do my own fitting, not only for convenience, but from necessity, and I always keep on hand a large stock of different sizes and patterns. I have not found a truss that serves me best in all cases.

An unsuitable truss is of little use as a protection against strangulation or to prevent the ill-effects of a hernia.

In indirect inguinal hernia, which constitutes about 80 per cent. of all cases, it is an easy matter to prevent the tumor from passing over the pubic bone, and unless one takes special notice he may imagine the truss to be doing its work properly, while the bowel may be in the canal when the patient is standing, and the internal ring is left unsupported.

My advice to physicians is, not to leave the selection of a truss for patients entirely in the hands of a truss dealer.

Several articles have appeared recently in medical journals advocating the injection of paraffine of a low melting-point, 99 to 104°, into the hernial canal and surrounding parts. The objects are to plug the external ring and canal and form a strong wall over the canal. Its advocates claim that the paraffine soon becomes encysted and of a cartilaginous consistency and to be non-irritating and harmless, when properly administered. Last August I tried it on two patients. I had not seen one of these, Mr. F., age 61, since, until two weeks ago; then his condition was much improved. The other patient, Mr. E., age 42, showed favorable results until five months afterwards; then slight suppuration began and part of the paraffine was removed. He has been a hard drinker all his life, and an examination of his urine shows a considerable amount of sugar. What effect such a condition had in causing the unfavorable turn I am unable to say, but I believe it had much to do with it. While my experience with paraffine has been unsatisfactory, probably under more favorable conditions, and after having had larger experience, it might be otherwise.

The fluids that I have used for years act entirely different from paraffine, as its objects are to cause both a contraction and irritation of the hernial rings and canal, and produce plastic adhesions.

Before giving the treatment be sure that the patient is wearing a proper truss, and have it worn day and night while undergoing treatment. If the hernia be an indirect inguinal, the pad of the truss should extend beyond the internal ring, and exert sufficient force at that point to prevent escape of the tumor into the canal.

An easy way to determine between an indirect and direct inguinal hernia is to press the thumb midway between the internal and external rings and have patients cough while standing. If the tumor does not appear, it is indirect in all probability. To determine the length of the canal advance the thumb towards the internal ring until a point is reached where the tumor comes out below the thumb.

The formulæ for injections which I now use are: *R.* Zinc sulph., gr. iij; guaiacol, $\mathfrak{m}\mathfrak{x}$ iij; creosote (beechwood), $\mathfrak{m}\mathfrak{x}$ iij; *fld.* ext. hamamelis, dr. $\frac{1}{2}$; glycerin, dr. j. *M.* *Sig.*—Inject 2 to 3 drops once a week. It will cause a slight burning sensation

for a few moments, and a day or so afterwards some soreness when walking, which will disappear in two or three days. I depend on this fluid principally. After the rings are closed, I usually give one or two injections of *R.* Sulpho-carbolate of zinc, gr. x; alcohol, oz. j. *M.*—Inject 5 to 10 drops once a week. It causes considerable burning for two or three minutes, but rarely any soreness afterwards. I do not first inject cocaine or employ any local anæsthetic, as the discomfort is but little more than when such means are employed, and it does away with the bad effects that may accompany their use.

Place the patient in a recumbent position, and prepare the field and instrument by the usual antiseptic methods. I use an ordinary hypodermic syringe with a needle an inch or more in length. If the hernia be direct, deposit the fluid around the edge of the external ring; and if it be indirect, have the needle follow the canal, inserting it at the edge of the external ring or higher up. Care must be exercised not to puncture the spermatic cord or any of the bloodvessels. The hernia must be thoroughly reduced and held back, so that the needle cannot possibly penetrate a bowel. It usually takes less than a minute to give the treatment, and it is all over before many patients realize that anything has been done. It is advisable to have patients lie for a few minutes afterwards; then they can apply the truss and resume their work. Quicker and better results would be obtained were patients to be treated at their homes and remain quiet for a day or so afterwards.

The injection treatment cannot be given carelessly or with impunity, as too many important organs lie near by. The fact that I have given over seven thousand such treatments without a death, abscess or other serious results, ought to go far to prove that it is a safe measure when proper care is exercised.

In 1897 I was called to treat patients in a town of 3000 inhabitants in the slate region of Pennsylvania, and in 1900 to a village four miles from there. Last May I made a visit principally to see the condition of those who had been treated before. Of the twenty patients that I examined who had received five or more treatments in those years and were not treated afterwards, fifteen were cured and going without support all or at least part of the time, and the other five were in

good condition. Had it been possible to have continued to look after them, better results could have been obtained. Nearly all of them are employed in slate quarries and do laborious work. Up to the present time I have treated thirty-two patients for hernia in those two small towns.

By means of the injection treatment the canal and rings in nearly all cases of reducible hernia can be entirely closed and retained in that condition with proper after-care. Where a cure cannot be effected the condition can be greatly improved. Long standing and large hernias frequently yield more quickly than more recent and small ones. I have been surprised at the excellent results in some of the worst cases, and disappointed in some of the seemingly favorable ones. Umbilical hernia, as a rule, yields very readily to the treatment.

The age, habits, health, occupation of the patient, and the condition of the affected walls all exert more or less influence upon the final results. While the aged can be as readily cured, their prospects of dispensing with all support after treatment are not as good as in persons less advanced in years. It would be much safer for persons who do heavy lifting to wear a light truss while at such work. If the abdominal walls in the hernial regions are weak and atrophied they must be strengthened and developed. It is a much better plan to strengthen the muscles before treatment is begun, than to wait until after it is over.

To better illustrate the importance of the developing process, the following is given :

During '95 Dr. W., age 60, was treated by me for a complete, right, indirect inguinal hernia, which came down the size of a hen's egg. The hernia was of 15 years' standing, and he had been wearing a truss. The walls of the affected area were extremely weak and bulged out very much. He received three injections, and about three months afterwards left off wearing the truss. Six weeks after doing so he complained of symptoms of a returning hernia. Two additional injections were given, and the truss was again worn for three months. It was again dispensed with, but shortly afterwards the above symptoms returned. Another injection was given, and he was advised to wear a bandage of linen, which he made himself. In '96 he began to massage the weakened muscles with a flesh

towel from five to ten minutes a day, and he has continued to do so occasionally ever since. He has not worn even a bandage since '97, and when I examined him a few months ago there was no evidence of a hernia returning, and the abdominal muscles were in excellent condition.

BROMIDES IN NERVOUS AFFECTIONS.—Dr. M. E. Douglass, in the *American Physician*, thinks that in choosing a homœopathic remedy we must take into account both the primary and secondary actions of a drug. In the case of the bromides, which are spoken of particularly in this article, he says we may prescribe minute doses for primary symptoms indicative of cerebral or spinal anæmia, while in congestion, spasm or erethism, which are secondary effects, we must give more appreciable doses. The primary effect of the bromides is to contract the bloodvessels, notably those of the brain and spinal cord. Under such influence, the organs are placed in that condition of quietude which leads to sleep. The secondary effect is to produce dilatation of the vessels, congestion, sleeplessness, nervous erethism, hyperæsthesia of the reflex nervous-system, and abnormal muscular irritability.

He thinks that the homœopathic physician who uses the bromides according to the above rules will become possessed of a class of very valuable remedies, without which his success in the treatment of many severe and dangerous disorders will be greatly diminished. It cannot be doubted that spasm of the bloodvessels, produced through the sympathetic and vasomotor nerves, explains the origin and continuance of many cases of cerebral anæmia. Mental emotions act in this way. In such cases the bromides are primarily homœopathic. The dose must be very minute—the third or sixth dilution, repeated until improvement sets in. Bromide of ammonium, in the 1x or 3x, is curative for deep, spasmodic cough, almost continuous; worse when lying at night, with tickling in larynx and a distinct whoop. It relieves many cases of pertussis. The bromide of calcium suits lax-lymphatic, nervous and irritable children. The child grows rapidly, but is not solid, learns to walk with difficulty, teeth come tardily and are attended with gastric, intestinal and cerebral irritation. This particular bromide may be given when vomiting, diarrhœa, sleeplessness, fretfulness and such symptoms are attended by symptoms of brain disease. One grain of the drug for each year of the child's age is recommended. Dr. Douglass claims that bromide of potassium is still a homœopathic prescription, when given in large doses for cerebral congestion and irritation, because its secondary effects are similar to such conditions. He concludes by saying that spasmodic croup, when the result of reflex irritation and not a catarrhal affection, yields promptly to the potassium bromide.

EDITORIAL.

PHTHISIOPHOBIA.

SOME time ago, when the question of compulsory reporting of every case of tuberculosis by physicians was being agitated, we raised our voice against it as adding to the hardships of physician, patient and friends, without in a commensurate degree benefiting the community. We expressed the view that all the good which was hoped for from the measure could be just as surely obtained by appealing to physicians to carry out, as family physicians, all the precautions which the Board of Health would attempt were it to take cognizance of the cases. To class tuberculosis as a contagious disease with smallpox, leprosy, etc., is certainly calculated to work hardship and harm. The idea of contagion is in the minds of the laity a vague one, shrouded in a dread mystery, from which they are inclined to flee, and even in the minds of the professional extremists and faddists it is usually so extended as to create unwarranted and unnecessary alarm. God knows, the poor consumptive has enough to endure in the thought of the character of the disease, for, although it is no longer considered incurable, it is only too well known that it is curable only under very favorable conditions, and the fight for life, with the uncertainty of the issue, gives the sufferer enough to tax his powers of fortitude and patience, without being made to feel that he is an outcast and a pariah, classed as unclean and dangerous, like the lepers of old.

In the case of tuberculosis the carrier of the contagion is so generally acknowledged to be the bacilli, and the manner in which they are disseminated so well known, that definite instructions can be given for the avoidance of infection, much more definite than is the case in the other contagious diseases. The foe is known and can, therefore, be subdued or avoided, according to rules which can be formulated so as to appeal to

the most ignorant understanding. It does not require, therefore, the intervention of a Board of Health between the physician and his patient, which, even if exercised with the greatest tact and consideration (which is unfortunately not always the case), is prejudicial to the mental condition of the patient at least. Hence we were more than pleased to find that a determined and systematic effort is being made on behalf of the consumptive to combat the senseless and cruel phthisiophobia so rampant at the present time. In a "Plea for Justice to the Consumptive," read before the Society of Medical Jurisprudence (*Medical Record*, January 2, 1904), Dr. S. A. Knopf, of New York City, strikes a manly blow in defense of this large class of unfortunates, for whom so much is being done, it is true, but with the accompaniment of the most cruel discrimination against it, both on account of physical infirmity and alleged mental and moral defects.

He traces the origin of official phthisiophobia to the declaration made two years ago by the Surgeon-General of the Marine Hospital Service, that pulmonary tuberculosis must be classed as a dangerous contagious disease, and that, in future, immigrants or aliens visiting our shores afflicted with pulmonary tuberculosis must be debarred from all ports of the United States. The justice, to say nothing of the humanity, of so wide-reaching an exclusion, of even those who offer guarantee that they will never become a burden to the community, can well be denied, as it was most forcibly by the New York Academy of Medicine in February, 1902. But, unfortunately, such hysterical science has proved more contagious than the disease against which it was directed, and it has infected State Legislatures and would-be up-to-date solons. Witness the attempts in California and Colorado to exclude invalids suffering from phthisis from their borders. It has also infected municipalities and smaller communities, so that we hear of objections being raised to the establishment of medical sanatoria, or complaints made against the presence of those already existing. We need merely point to the short-sighted and cruel policy of the inhabitants of the Pocono region, where the hotel-keepers are bound together to deny accommodation to any one suspected of suffering from tuberculosis. Heaven save the mark, when mine host ventures to pass judgment on consumption—of anything but victuals.

In consequence of such inane phthisiophobia the so-called Goodsell-Bedell law was passed in New York against the almost universal protest of the medical profession. According to its provisions, any board of supervisors of a county, or a town board can by a mere adoption of resolutions prevent the establishment of an institution for consumptives. It was this last symptom of irrational phthisiophobia that roused Dr. Knopf to his vigorous protest. He proves by the examples of Goebersdorf and Falkenstein, in Germany, where five of the most flourishing sanatoria for consumptives have been in existence for the last fifty years, that there is not the slightest danger from well conducted institutions of the kind, for in those villages, since their establishment, the mortality from tuberculosis has decreased one-third from what it was previously. Such sanatoria really become schools of hygiene, and object lessons in familiarizing the public at large with preventive measures.

From this Federal and State phthisiophobia, aided and abetted by enthusiastic ignorance, has resulted a private dread of the disease which is of all others the most distressing in its consequences. Not only are employees discharged because of suspected tuberculosis, even where all precautions are taken against possible contagion, but even in the family circle instances are cited, fortunately rare, where this phthisiophobia has led to almost incredible inhumanity and cruelty.

The natural consequence of all this is that patients, fearing perhaps a definite diagnosis, will delay consulting a physician, and thus allow the most favorable incipient stage of the disease to pass before seeking medical advice, thus lessening greatly the chances of cure.

The social ostracism to which an individual suffering from a "dangerous contagious disease" may be, and in many cases is subjected, is hard to contemplate with equanimity. This has been much fostered by a professional phthisiophobia where scientific zeal has run away with humanitarian discretion, as Dr. Knopf has shown by his well supported contradiction of the views of a Dr. Saxe, that "The fundamental factors in the psychical makeup of the typical consumptive are the loss of self-control, the rise of brute selfishness, the increase of susceptibility to suggestion, to emotion, and to nervous irritation,

and the tendency to rapid nervous and psychical fatigue." It only needs the weight of these alleged mental and moral defects utterly to crush the poor consumptive and to make him an outcast on the face of the earth, through a phthisiophobia which is conceived in half-knowledge, nourished by cruel selfishness, and born of unbalanced scientific zeal.

QUACKS AND QUACKERY.

"THE patent-medicine curse," as Edward Bok has termed the unceasing pursuit of the American people after quacks and their nostrums, is not confined to our day or generation. The dawn of history witnessed the half-admiring, half-fearful crowd gathered about the Assyrian magician as he administered his secret draughts to the sick in the market-places of ancient Babylon. Hippocrates, the father of medicine, bound his disciples by an oath to make known for the good of humanity any discovery they might make in the art of healing, and thus distinguished them from the charlatans who even in these early days abounded in the streets of Athens. What an innumerable multitude of charlatans the Middle Ages produced! Prominent among them was the pilgrim returning from the East, possessed of some mysterious "Restorer of Youth" obtained from the Arabians; the hermit from the mountain caves, heralding with boasting voice his newly discovered "Elixir of Life." The wrinkled brow and halting step of the pilgrim, and the rude cross marking the hermit's grave, soon revealed both the folly and uselessness of their panaceas. In modern times, notwithstanding the spread of education, charlatans are as numerous as ever, and the quack of to-day lacks neither assurance nor followers because of the recognized fraudulence of his predecessors. The streets of our cities teem with their pretentious signs, and even the highways and hedges are disfigured by boasting testimonies of their erudition and skill. Houses, barns, newspapers and "walking media" are utilized to set forth the praises of their "discoveries" and "positive cures." As a result of these means of advertising the financial success of the modern charlatan far surpasses that of his predecessors.

There are several reasons why quackery has so many followers. In the first place, poverty renders it impossible for some individuals to employ a physician, and as a result they resort to the use of a "patent medicine." This class is small, as there are to-day few worthy persons who cannot secure the services of a competent physician free of charge. Another and much larger class of persons, who resort to quackery, consists of those who are able to pay for the services of a physician, but who think they will get the same result for less money by using a proprietary preparation. This attempt to get something for nothing usually proves to be far from economical, as we shall show later on. A third class consists of those who are deceived by the idea that the "famous doctor" possesses some peculiar drug of whose healing powers scientific physicians are ignorant. This element of secrecy has been an effective argument among charlatans in all times. As a matter of fact the majority of "patent medicines" are composed of well known drugs. To-day there is no such thing as a really secret remedy. We know the composition of them all; they are secret only to the gullible people. The history of a famous remedy for dissolving stone in the bladder is an interesting example of the point in question. So great did the reputation of this particular nostrum become, that men of renown signed a petition requesting the British House of Parliament to offer a grant of £5000 for the disclosure of the secret. The remedy consisted of "calcined egg-shells and snails, or lime obtained by a filthy process." The famous Dr. Hartly, one of its main advocates, died of stone in the bladder after taking 200 pounds of the "cure."

A fourth class of persons among whom quackery finds many victims are those unfortunate individuals suffering from some incurable or long-lasting disease. The charlatan well knows that humanity will lend a more willing ear to a pleasant falsehood than to an unpleasant truth, and he proceeds to inveigle the unhappy sufferer into buying his nostrum by means of promises which he knows are impossible to fulfill.

It is therefore evident that the methods of quackery are based upon deception and fraud.

The constituents of the "patent medicines" on the market are, as we have said before, in the majority of cases well known

drugs, some harmless and some dangerous. The most common constituent is alcohol. Many of these preparations contain a larger percentage of alcohol than whiskey. The following is the percentage of alcohol in some of the well known "patent medicines" as given by the Massachusetts State Board Analyst:

	Per cent. of alcohol (by volume).
Lydia Pinkham's Vegetable Compound,	20.6
Paine's Celery Compound,	21.
Ayer's Sarsaparilla,	26.2
Hood's Sarsaparilla,	18.8
Peruna,	28.5
Parker's Tonic, "purely vegetable,"	41.6
Boker's Stomach Bitter's,	42.6
Green's Nervura,	17.2
Hostetter's Stomach Bitters,	44.3
Richardson's Sherry Wine Bitters,	47.5
Warner's Safe Tonic Bitters,	35.7

Cocaine, opium, strychnia and arsenic are among the dangerous drugs frequently used in the preparation of "patent medicines."

It does not require much erudition to foresee the injury which must result from the indiscriminate use of such drugs. One of the most common consequences is the acquisition of a drug habit. It is little wonder that children acquire the taste for liquor, when their parents dose them from the cradle with large quantities of alcoholic nostrums. No one has the moral right to give to a child, or to any other person, medicine of whose ingredient they are ignorant, unless they have the assurance of a reputable physician that it is harmless. Many men and women who are sincere advocates of "temperance," and who would be shocked at the idea of going into a saloon and ordering a glass of whiskey, take their daily "drachm" in the form of a quack remedy.

Another very serious result from the use of secret nostrums is the suppression of the symptoms of the disease. Frequently persons suffering from pulmonary tuberculosis make use of cough syrups containing opium, which suppresses the cough and leads the patient to believe that he is improving. All this time the tubercle bacilli are destroying the lung tissue, and, deceived by his false sense of security, the victim is lured to his death.

Patent medicines cause those who use them much unnecessary expense. Many acute diseases could be quickly cured if treated in the beginning by a competent physician. By the injudicious administration of useless or harmful nostrums the disease often becomes chronic, and what might have been cured in a few days now requires weeks or even months of treatment. The more "patent medicines" that are used, the better it is for the medical profession.

The patrons of these charlatans are not confined to any one class of men. The educated, the wealthy and the healthy are as easily victimized as the ignorant, the poor and the sick. Intelligent business men, lawyers and even clergymen lend their name and influence to help spread this species of fraud. The secular and religious press are called into service to set forth the praises of the "wonderful discoveries" and "marvelous elixirs." It is a peculiar spectacle to see these exponents of education and of morality exploiting poisonous nostrums, devised by the crafty for the deception of the ignorant and unfortunate. The absurdity of their inconsistency would be amusing were it not for the poverty and suffering resulting from their conduct. The time has come when the moral and intellectual sentiment of our country should be directed against the "patent-medicine curse," which, in the opinion of many of our best thinkers, is as degrading to our national life as the liquor habit. Physicians should see that their patients properly appreciate the danger of using such preparations. Reputable magazines, and especially religious publications, should cease to advertise these deceptions. We believe that any intelligent person, who will consider the facts, can find little reason for resorting to quacks and their nostrums. We freely confess that medical science cannot cure all diseases, but we can positively assert that there is no method of treatment that has given the least promise of benefiting the sick that has not been thoroughly investigated by legitimate physicians. No class of men have been more diligent in their investigations, or more willing to make known to the world the results of their study, than the members of the medical profession. Legitimate medicine aims to benefit the world, quackery to deceive the world. As Dr. King has well said, "legitimate medicine has no secrets. Of all her vast acquirements she withholds nothing from the public. All that

she has collected from all ages, and nations, and countries is freely offered to all the world, and whenever required is bestowed upon suffering humanity without money and without price. Quackery may dash its mercenary waves against her and send its spray mountains high, but she will still pursue the even tenor of her way, unmoved by its fitful storms. She has for her foundation a rock broader and more enduring than Gibraltar; the everlasting principles of truth and reason are the pillars upon which she rests; her temple is dedicated to humanity, and will stand until the 'last shock of time shall bury the empires of the world in undistinguished ruin.'"

THE FICKER TEST FOR TYPHOID FEVER.

THE Widal test has proven to be of great value to clinicians in the diagnosis of obscure cases of typhoid fever. Unfortunately, however, on account of the expense of the apparatus, and of the necessity of having on hand a fresh and virulent culture of the typhoid bacilli, the general practitioner is unable to perform this test. Physicians residing in the cities can have the test made by the Boards of Health, but those living at a distance from properly equipped laboratories are often deprived of the advantage of the test. Last year Ficker announced that the serum from typhoid patients, if added to a fluid containing dead typhoid bacilli, would agglutinate the dead bacilli and cause a cloudiness of the fluid. A great deal of doubt was expressed by clinicians as to the value of this test, but the results of experiments thus far have been favorable. Meyer, of Berlin, finds the Ficker test more reliable than the Gruber-Widal reaction. This he attributes to the fact that the virulence of the bacilli used in the manufacture of Ficker's fluid is more constant. Should future experience demonstrate the usefulness of Ficker's reaction, a great advance will have been made in the diagnosis of typhoid fever. The technic of the test is simple, and it can be readily and quickly made by any physician in his office. It does not require a microscope, a thermostat, or a living culture of typhoid bacilli.

The method of performing the test is as follows:

I. *Obtaining the Specimen.*—The patient is placed in the reclining position and the skin of the lumbar region cleansed with soap and water, alcohol and ether. Two or three incisions are made close together with a lancet, and a cupping glass applied in the usual manner. When 1 cc. of blood has been drawn, the cupping glass is removed, closed with a rubber stopper, and placed in a cool place until the serum has separated.

II. *Carrying Out the Reaction.*—0.1 cc. of the serum, which must be perfectly free from blood-corpuscles, is placed in a small glass tube by means of a pipette, and 0.9 cc. of sterile sodium chloride solution added. A sterilized stopper is now inserted and the liquid thoroughly mixed. Of this diluted serum 0.1 cc. is placed in a second glass tube, and 0.2 cc. in a third. With a pipette 0.9 cc. of Ficker's fluid is transferred to the second glass tube, and 0.8 cc. to the third. The serum dilution in the second glass will hence be 1 : 100, while that in the third glass will be 1 : 50. One cc. of Ficker's fluid is now transferred to a fourth tube. All the glasses are now stoppered with previously boiled stoppers, thoroughly shaken, and allowed to remain at rest at the room temperature, protected from light. In most cases the reaction is distinctly visible in from ten to twelve hours. A longer period than twenty hours must not be waited in order to make certain of the result. The reaction is *positive* when the bacteria present in the diagnostic fluid agglutinate and sink to the bottom, while the contents of the glass become clearer. The clarification is best seen when the glass is observed in a good light with a black background, and compared with the fourth tube which contains only the Ficker fluid. Merck & Co. of Darmstadt have put the fluid, together with the apparatus, on the market in a compact form.

While it is early yet to speak in a positive way as to the reliability of this test, the method is being given a thorough trial by many clinicians and accurate data will soon be forthcoming.

SODIUM IODIDE IN CORYZA.—M. Laffont, an old school physician, we believe, cures colds homœopathically with the following : R. Sodium iodide, 5 grammes ; distilled water, 150 grammes ; one "soup-spoonful" in milk every three hours. As an aid by way of local treatment he advises an ointment of sodium iodide, 3 grammes ; sodium bromide, 3 grammes ; vaseline, 30 grammes.

REPORT OF THE ROYAL COMMISSION ON THE RELATION OF HUMAN
AND BOVINE TUBERCULOSIS.

A PRELIMINARY report has been received regarding the findings of the Royal Commission, appointed in London three years ago to investigate the relation of human to bovine tuberculosis. The results of the investigation are contradictory to the opinion expressed by Koch, that human and bovine tuberculosis are not identical, and that it is impossible for the disease to be transmitted to man from tuberculous cattle. The report states that, "we have most carefully compared the tuberculosis set up in bovine animals by material of human tuberculosis, to that set up in bovine animals by material of bovine origin, and so far we have found the one, both in its broad general effects and in its minor histological details, identical with the other." In view of these findings the Commission considers that it would be unwise to alter the existing sanitary laws regarding tuberculous animals. The details of the investigation will appear in the final official report.

BOILED AND FILTERED WATER.—The fiat has gone forth in Cleveland that the proper thing to drink is water—that has been previously boiled and filtered. Dr. Kraft, in *American Physician*, asks what this stuff is anyhow? He doubts whether water that has been filtered and boiled and sterilized and fixed up generally has any resemblance to that delicious drink which we used to enjoy in our boyhood days, sipped from the moss-covered bucket that hung in the well. Dr. Kraft will get used to the new taste if he comes to Philadelphia. Here it is customary to announce to your guest that the water has been properly attended to, that he may not fear to partake of it, should he care for water; and upon many public bills-of-fare may be found the assuring sentence, "The water of this establishment is all right," or words to that effect. Truly this is a most tantalizing age to live in. If one drinks water, he gets typhoid. If he drinks beer, he increases his chances of developing cancer later in life. If he drinks whiskey, his liver shrinks. If he drinks coffee, he becomes a confirmed neurasthenic. If he drinks the numerous cereal substitutes, he loses his sense of taste entirely, if one may believe the statements of the manufacturers, until he no longer craves the good things of earth. Truly the bacteriologists have much to answer for. By the way,—if you happen to know a good bacteriologist, just watch what he drinks, and take the same. It is generally the best in the house.

GLEANINGS.

METASTASES IN THE ILIAC GLANDS IN CARCINOMA OF THE UTERUS.—Manteufel points out that the tendency of late has been to extend the operative procedure in uterine cancer, so that now the extirpation of the iliac glands is added to it. Operation by the vaginal route is, therefore, superseded by abdominal section; but this is associated with two serious objections, namely, the greatly increased technical difficulties and the increased mortality amounting to 25 per cent. as opposed to 6 per cent. from the vaginal operation. Whether this increased mortality is justified by an increase of permanent recoveries can only be determined some years hence, after the lapse of sufficient time for noting the percentage of recoveries. At present it is of interest to determine whether the condition of the iliac lymph glands in uterine cancer really is such that their extirpation is necessary or justifiable. The iliac glands removed during operation upon thirty-three cases of cancer of the uterus were examined by serial section. In similar examinations by other observers it was found that the average frequency of involvement of these glands varied from 26.8 per cent. to 57.5 per cent.; but these averages are not uniform, inasmuch as some observers include glands which showed cystic changes. Of the thirty-three cases here reported, in seven instances no glands were found; of the remainder, in twenty-three cases, the glands were examined in serial section. The appearance of the glands was quite variable, depending upon the stage of the primary disease and the existence of previous inflammatory conditions. Their size and consistency, as also the macroscopically recognizable degenerations like calcareous changes and necrosis, were so variable that they were useless for determining whether or not a cancerous involvement existed. The microscope alone could determine this. But even here the changes observable were not sufficiently constant to warrant speaking of precarcinomatous appearances. In one group of cases the glands appeared normal; in a second group they were more or less indurated, the stroma increased at the expense of the adenoid tissue, the capsule thickened, frequent inclusions of calcareous masses in the stroma, and fatty degeneration of the parenchyma. In these changes we perhaps have presented the results of a previous chronic inflammation which was produced secondarily by ulceration of the uterine carcinoma, or primarily by an inflammatory condition preceding the cancer. A third variety of glands, readily recognizable by their swelling, was found in a condition of "functional hyperplasia." The follicles were much increased in number and enlarged; the lymph channels were closely filled with leucocytes, especially at the edges. This extreme filling is often limited to the marginal sinus, so that the cortical substance appears as if infiltrated. We may regard the functional hyperplasia as a defensive process of the organism against the carcinoma, and especially its fluids, which, clinically, is made manifest by the leucocytosis often observed in carcinoma. Finally, a fourth group of glands showed metastases in varying size and numbers. The affected glands were

mostly enlarged, though not always, and showed a central degeneration. In beginning metastasis the remaining gland-tissue was mostly hyperplastic; in advanced metastasis there was fatty degeneration and the stroma was thickened. Such metastases were present nine times among his twenty-three specimens, or 27.3 per cent. of the entire series operated. In two cases the glands were cystic, a formation whose significance is uncertain.

It appears from a similar examination of cases made by Wertheim that infiltrated parametria may be free from cancer, while soft parametria may be diseased. Therefore it seems that, from a clinical examination of the parametrium, no conclusions can be drawn with reference to the involvement of the glands. Practically, the same conclusions are suggested by the examination above outlined. So, also, the conditions of the primary site of the cancer admit of no conclusions with reference to the involvement of the glands. In some instances the cancer was widespread, without association of glandular metastases; while in other cases the cancer in its early stages, the tumor being only the size of a cherry, showed the glands to be diseased. Neither is the size of the glands a reliable index of their cancerous involvement, for in one instance a gland of the size of a pea showed cancer, while in another case greatly enlarged glands were free from metastases.—*Beiträge, z. Geb. u. Gyn.*, Bd. viii., 253.

Theodore J. Gramm, M.D.

EXTRAUTERINE PREGNANCY.—E. Runge, in examining the circumstances attending two hundred and thirty-three cases of ectopic gestation, found that of this number there were one hundred and eight cases associated with hæmatocele; in seventy-three cases there was tubal abortion; in forty-seven cases there was tubal rupture; in five instances the tubal pregnancy was yet intact. Of the cases where the tuba had ruptured, in thirty-nine times the rupture had occurred into the free peritoneal cavity, and eight times into the broad ligament. The relative frequency of these several occurrences is in accord with the percentages observed in other large series of cases. The study of his cases leads the author to the following conclusions:

1. Tubal pregnancy has its cause in previous pathological puerperium and in chronic gonorrhœa (24 per cent.—Duhresen found 68.7 per cent.).

2. Nulliparæ are not protected from its occurrence.

3. A more or less prolonged period of sterility precedes ectopic pregnancy. He found on an average four years.

4. Tubal abortion and rupture mostly take place in the first to third month of pregnancy.

5. The operative treatment of abortion and rupture was used: 1. When symptoms threatening life existed; 2. When the tumor was increasing in size; 3. When the general condition became worse, or when a resorption of the tumor did not set in; 4. In continued high temperature.

6. The best operative procedure in tubal abortion or rupture is laparotomy.

7. Drainage of the abdominal cavity is to be avoided if possible.

8. The placenta and foetal sac are to be entirely removed if possible.

9. The clots found in the abdomen should be removed only as much as can be easily done, provided of course that they are not disintegrating or purulent.

10. The end of pregnancy should not be waited for, in order to operate only when the child is viable.

11. Hæmatocele is to be treated conservatively when possible. It should be operated only for special indications, and then preferably through a posterior vaginal section; and by means of abdominal section only when the tumor is large or difficult to reach through the vagina.—*Arch. f. Gyn.*, Bd. lxx., 690.

Theodore J. Gramm, M.D.

INTERNAL SECRETION OF THE ENDOMETRIUM AND THE FORMATION OF METROTOXIN.—Schucking says: "The extensive morphological and physiological changes which affect the uterus during menstruation and pregnancy indicate the existence of special regulating conditions, whose functions are independent of the changes in the ovaries and of the ovum. The supposed trophic irritation which an internal secretion of the ovaries could exert upon the uterus would not be sufficient to explain these changes. Former experiments also speak against the assumption of an exclusive production of these changes through the nerve channels. Conversely we must assume that the function of the ovaries must stand in interdependence with the uterus. Although we cannot prove this from the rhythmically occurring changes at menstruation, it is yet certain that ovulation ceases as soon as an ovum begins to develop in the uterus."

In order to clear up these circumstances the author made an extract from the pregnant uteri of rabbits, and this was injected into other rabbits, and on subsequent examination of their uteri there was found an unusually strong injection of the uterine vessels and only confined to them, while the ovaries were very small and in some cases atrophied. During these experiments none of the rabbits became pregnant, although having access to the males. These results seem to indicate that a specific influence from the products of tissue changes in the uterus is exerted upon the ovaries in the form of an inhibition and upon the uterus as an increase in the blood-supply.—*Centralbl. f. Gyn.*, 1904, 435.

Theodore J. Gramm, M.D.

INTESTINAL INFECTION BY THE BACILLUS DYSENTERIÆ (SHIGA) IN INFANTS.—(La Fétra and Howland.)—From an analysis of sixty-two cases the following points are worthy of note:

1. The unexpectedly great prevalence of dysentery organism in cases of diarrhœa in infants at least during summer months. Thus, out of sixty-four consecutive cases examined in Vanderbilt clinic sixty-two were positive.

As has been mentioned before, this is the first large series in which cases have been examined *ad seriatim*, and the results are certainly striking. It is all the more so when we consider that these were cases in dispensary practice where, with the severe, the very mildest cases may be seen. Duval and Bassett examined twenty-five successive cases of infantile diarrhœa and found organisms in nineteen; but it should be stated that the patients were observed in a sanitarium at a distance from Baltimore where, of course, only the more severe cases were sent from dispensaries, while these cases were all ambulant ones, and their stools were examined where there existed only the slightest digestive disturbance. These cases were also seen very early, whereas, in hospitals, the cases are rarely seen until after the initial symptoms have passed.

2. All types of diarrhœal disease, as characterized by their clinical symptoms, are to be found among these cases. Some were examples of severe, and others mild, ileocolitis; others could only be classed as the mildest form of in-

testinal indigestion. The course was short, as a rule, but prolonged in some eight cases.

3. As compared with cases of summer diarrhœa of other years, those in this series were generally much milder; and possibly this was due to two factors: (a) Mild summer. (b) The increasing knowledge among the tenement population of the care of infants and their food.

4. The striking number of breast-fed infants, fourteen in sixty-two cases, more than 20 per cent. of all. In the series of Duval and Bassett, previously mentioned, there were four breast-fed cases, and a few others in addition have been reported. The greater number in this series is accounted for by the fact that all stools from patients with diarrhœa were examined. Of the fourteen breast-fed cases, not one was severely or even moderately ill, and only one had blood in the stools. Such cases would not therefore be sent to hospitals, and so, usually, their stools would not be available for examination.

5. The serum treatment was not given in a sufficient number of cases to warrant any conclusions. While of apparent benefit in some cases, there were others where no effect was noted. It may be that larger dosage is necessary, but if so the serum must be more concentrated.—*Archives of Pediatrics*, March, 1904.

William F. Baker, A.M., M.D.

LACTAGOL, A NEW GALACTAGOGUE.—Dr. Van den Brink has tried this preparation, a recent addition to our therapeutic artillery against scanty lacteal secretion in nursing women, a field where one feels lamentably helpless, and he claims to have gotten good results. It is a powdered extract of cottonseed, and on account of it having been used successfully in cattle as a milk producer, it was tried in women to increase the flow of milk. He gives from 3 to 4 heaping teaspoonfuls per diem; its influence becomes manifest in three to four days.—*Deutsche Medicinische Wochenschrift*, No. 6, 1904. (Several months ago a Danish physician asserted that he succeeded in increasing the quantity of milk in women with scanty milk secretion by having them eat cooked udders of cows, a rather unpalatable mess for those who have ever tried it. The powdered extract of sheeps' udders can be obtained in America of various firms, and I can say that in a case where I suggested its use it seemed to give satisfaction. But one swallow does not make a summer.)

Frank H. Pritchard, M.D.

AN UNTOWARD RESULT OF THYROID THERAPY.—Dr. Albertsberg had under treatment for myxœdema a patient of 35 years, a man who had taken the powdered glands for some time, gradually increasing the dose until he took about 50 gms. a day. He developed an optic neuritis of both eyes, which went on to total blindness of the left one, though the drug was left off. The vision improved somewhat in the other eye. The symptoms of myxœdema disappeared from the use of the drug.—*Berliner Klinische Wochenschrift*, No. 16, 1904.

Frank H. Pritchard, M.D.

ANOTHER METHOD OF DOING TRACHEOTOMY.—Dr. Cohn describes the manner in which tracheotomy is done at the Moabit Hospital in Berlin. The lower operation is done; only the skin is incised with the knife, while the deeper tissues are torn apart by button-tipped hooks. The advantages are the absence of bleeding and being able to dispense with assistance.—*Centralblatt fuer Chirurgie*, No. 7, 1904.

Frank H. Pritchard, M.D.

TREPANATION UNDER LOCAL ANÆSTHESIA AND SEPARATION OF THE PERICRANIUM, WITHOUT HÆMORRHAGE.—Prof. Heidenhain follows Braun's procedure, and employs a $\frac{1}{2}$ –1-per-cent. solution of cocaine, to which has been added 1 or 2 drops of a 0.1-per-cent. solution of adrenalin per ccm. of cocaine solution. This he injects under the pericranium. In the course of half an hour an area of the size of half a dollar becomes anæsthetic, including the scalp, pericranium, the skull and possibly the dura. Thus, if one make several such injections one may trepan the skull without general anæsthesia. One can easily control the hæmorrhage by placing a series of sutures back of the edge of and around the wound before incising. These may be permitted to remain, and removed after eight days with the skin sutures.—*Centralblatt fuer Chirurgie*, No. 9, 1904.

Frank H. Pritchard, M.D.

PSORIASIS OF THE PALMS OF THE HANDS.—In the Greek journal, *O Iatrike Proodos*, No. 6, 1904, the following is suggested in palmar psoriasis: Alcohol (96 per cent.); corrosive sublimate, 0.20; thymic acid, 10.0; oil of wintergreen, 20 gtt. Rub into the palms three times a day, 200.

Frank H. Pritchard, M.D.

MUSICAL EQUIVALENTS OF EPILEPTIC ATTACKS.—Dr. Montagnini reports the case of Marta R., 48 years of age, a Venetian, married, who for thirteen years had been an inmate of an asylum, and who gradually became wholly demented. She is subject to nocturnal attacks of epilepsy, and since 1897 it was noticed that she was liable to veritable attacks of singing. They seem to be of an epileptic nature. The patient is wholly oblivious of her surroundings, remains in bed, and suffers from a double chronic conjunctivitis. All at once, and apparently without cause, usually at certain hours, she will break out into song. The singing is monotonous and offers but little variety; she utters musical notes, which are uttered slowly. At first the tones are low, and gradually increase in pitch until they are quite high, then decrease in strength until she ends in a sort of murmur or a series of low notes. At times the same tone is held throughout the whole song, when it generally ends suddenly. These fits last from five to ten minutes. Then sensation is lessened, for one may scratch her skin with a pin without her stopping her song. These attacks usually come on in the morning; rarely were they noted at night, and were manifestly coincident with the convulsions. After the song she falls into her accustomed state of silence and apathy. Under a long course of treatment with the bromides, both the convulsions and the attacks of singing became less frequent. Their appearance at an almost unchanging hour, their periodicity, their stereotyped form, their coincidence with motor attacks, the decreased sensibility during the singing, their decrease under treatment by the bromides, their constancy, which had lasted seven years, and the final termination in dementia, all went to demonstrate this peculiar clinical phenomenon to be due to her fundamental disease, epilepsy.—*La Nuova Rivista Clinico-Terapeutica*, No. 4, 1904.

Frank H. Pritchard, M.D.

WIDAL'S REACTION RENDERED EASY.—Dr. Ficker claims to have prepared a fluid which is kept in the cold and dark, and which has remained unchanged for nine months, which he asserts will give the same results in doubtful cases of typhoid as a diagnostic measure, as a culture of typhoid bacilli.

It may be bought of Merk, with an apparatus and literature giving directions for carrying out the test. It is said to have been used in large hospitals. He will communicate later the composition of the fluid and further details.—*Hospitalstidende*, No. 10, 1904.

Frank H. Pritchard, M.D.

FEVER OF INDEFINITE ORIGIN AND ITS POSSIBLE CAUSES.—Prof. Bozolo, of Turin, in a paper read before the Italian Congress for Internal Medicine, recently held at Padua, called attention to a number of diseased conditions whose origin frequently may remain a mystery until a careful necropsy reveals the true cause.

There is a second group where fever may be the only symptom for a long time; for example, in leukæmia, where it may precede the development of glandular tumors; pretuberculous fever, as well as tuberculous fever of a typhoid type; cancerous fever, which introduce or accompany malignant growths, especially those of the mediastinum, stomach, etc. A third group is the syphilitic fever of the tertiary stage or, better said, the fever of the latent period of an old preceding syphilis. The fourth group comprises these cases where bacteria are found in the blood. The streptococcus, pneumococcus and the staphylococcus are easily detected. The typhoid bacillus has also been detected by him in the blood. It is worthy of mention that the tetragonus may cause long-lasting fever and lead to a swelling of the liver, which may simulate abscess of that organ.—*Muenchener Medicinische Wochenschrift*, No. 13, 1904.

Frank H. Pritchard, M.D.

INTERRUPTION OF PREGNANCY IN TUBERCULOSIS AND ACUTE FEBRILE DISEASES.—Prof. Ascoli holds that one is justified in performing abortion in pregnancy in tuberculous women as soon as the general condition suffers, and one may hope to restore the patient to health otherwise. Dr. Zagari further regarded the operation as indicated in uncompensated heart valvular diseases, in grave nephritis, in eclampsia, hyperemesis toxica, icterus gravidarum (acute yellow atrophy), in serious poly-neuritis, tetany, chorea, epilepsy, insanity, brain tumors, cerebral hæmorrhage, spinal diseases, in grave anæmia, in malarial and cancerous cachexia, leukæmia and morbus maculosus, as well as in diseases of metabolism, as struma, Basedow's disease, osteomalacia and diabetes.—*Ibidem*, No. 13, 1904.

Frank H. Pritchard, M.D.

TREATMENT OF SEVERE HÆMORRHAGES FROM INTERNAL ORGANS WITH EXTRACT OF THE SUPRARENALS.—Prof. Hermann Schlesinger, of Vienna, at a recent meeting of the k. k. Gesellschaft der Ärzte of that city, reported an interesting series of cases where adrenalin was used successfully in hæmorrhages from internal organs.

The first was that of an engineer of 33 years, who was a pronounced hæmophilic, and who came under observation on account of a serious hæmorrhage from the intestines; this had persisted for several days, and, in fact, he passed one stool of pure blood. The patient received 10 to 20 drops of 1 : 1000 solution of suprarenal extract every hour, together with gelatine, by the mouth. The bleeding ceased at once. There was no untoward effect, though the patient received over 30.0 of this solution of adrenalin in two days. (The writer seems to consider adrenalin and suprarenal extract as synonymous in meaning.)

The second case, a woman of 40 years, where the symptoms appeared to in-

dicate a suddenly developing morbus maculosus Werlhoffii, for there was profuse vomiting of blood, with hæmorrhages from the nose, mouth and pharynx, bloody stools, bloody urine and subcutaneous hæmorrhages. The patient became very anæmic and seemed in a hopeless state. There was an immediate improvement in the symptoms after administering adrenalin in the above dose. The hæmorrhages from the kidneys and digestive tract ceased and no more blood was effused under the skin. She recovered her health after a long convalescence.

The writer has also employed this remedy in a large number of cases of hæmorrhages from gastric ulcers, typhoid fever, tuberculosis, neoplasms, etc., with equally good results and without any untoward results or any after-hæmorrhages. Five to ten drops of a 1 : 1000 solution never caused any increase of the blood-pressure. Hence, given internally, it does not stimulate the heart. It did not, however, seem to act favorably in hæmoptysis. The different preparations of suprarenal extract, as adrenalin, paraganglin, tonogen, all act the same practically.—*Muenchener Medicinische Wochenschrift*, No. 13, 1904.

Frank H. Pritchard, M.D.

ASEPTIC ERGOT IN ANÆSTHESIA AND SHOCK.—In his article, Grad, New York, reviews several theories advanced to explain the nausea following anæsthesia, and incidentally refers to a notable paper by Hess (*Medical Record*, 1902), who suggested that in view of the nausea and vomiting being probably due to the excretion of ether into the stomach, the indications are to accelerate the excretion, prevent its irritant action in the stomach, and during the administration to reduce the quantity of ether used to a minimum. The excretion of ether is facilitated by saturating the patient with water, which condition is to be obtained by giving water freely up to the time of the administration of the anæsthetic. This gives all the excretory organs a chance to excrete ether rapidly, which they are likely to do, since ether is soluble in water to the extent of 1 to 10.

Grad then passes to the subject in hand, which is that the hypodermic administration of aseptic ergot seems to have a very beneficial effect in the treatment of vomiting and shock after anæsthesia. He says this therapeutic measure has proven encouragingly successful in his hands and submits the suggestion in the hope that it will receive further trials. Though his experience has been limited the results obtained have been so uniform as to warrant more extended attention. Livingstone seems to have originally suggested the subject last year. The latter says that "a patient who has had a proper preliminary preparation by ergot for operation will have little or none of those distressing and often seriously objectionable accompaniments and sequelæ of anæsthesia, nausea, retching, vomiting and delirium, and fluid nutriment may be safely given, as a rule, within a few hours after operation."

It is not claimed that ergot will prevent vomiting, but it mitigates the feeling of nausea, controls the retching and diminishes the frequency of the acts of vomiting. The remedy has also been found to act as a powerful anodyne, inducing a state of nerve calmness, and while in this action, of course does not supplant morphia, it has the effect named, either alone or in conjunction with morphia.

In shock the administration of ergot is advantageous. It cannot as yet be determined whether this result depends upon an indirect action by relieving

nausea, retching and pain, or whether the effect is due to bringing about a state of equilibrium in the cerebral circulation. The physiological effect of ergot is to contract involuntary muscles, and this action is advantageous, both locally and in general, when exerted upon the congested area or organs where the bloodvessels are dilated and the nerve endings are pressed by these vessels, a condition ripe for exudation and inflammation. In shock, ergot likewise exerts its influence by equalizing the disturbed circulation in the medulla.

Ergot prepared in sterilized capsules is used. Ten grains are given hypodermically when the anæsthesia is fully established, and a second dose when the patient leaves the table. A dose is given during the operation if the latter be lengthy. For excessive nausea it is repeated in two hours. In shock the remedy may be repeated every hour.—*Amer. Jr. Obs.*, 1904, 594.

Theodore J. Gramm, M.D.

IODIZED CATGUT.—White, Washington, has given some attention to the surgical usefulness of catgut prepared by the Claudins process, which consists in soaking the catgut for one week in a 1-per-cent. solution of iodine in a saturated aqueous solution of iodide of potash, and the results have been quite satisfactory in experimental animal tests, by means of laboratory culture methods, and in actual surgical practice. The amount of iodine taken up equals about one-fifth grain per foot of catgut. After standing for eight days in the above solution the gut is ready for use after being rinsed in a weak solution of carbolic acid or sterilized water. The suture is said to be pliable, ties firmly, its strength is increased, it swells very little, and is non-irritating. It is absorbed in from seven to twelve days. If the catgut is allowed to remain in the solution more than six months, it becomes brittle.—*Amer. Jr. Obs.*, 1904, 605.

Theodore J. Gramm, M.D.

A CONSIDERATION OF THE VALUE OF TOPICAL APPLICATIONS TO THE UPPER AIR-TRACT.—(Hinkle.)—The following tentative summary of the value of topical applications to the upper air-tract is made:

1. Insufflation of powders is not an efficient form of local medication of the upper air-tract.

2. Inhalation of medicated steam is of service in the early stages of all catarrhal inflammations—the higher the temperature and the saturation of the inhalation, the greater the efficiency. Dry inhalation of volatile parts of the drug is of little utility. Inhalation of smoke from a smudge of suitable medicaments will usually control a paroxysm of asthma, but finely nebulized oils, suitably medicated, are more elegant when equally efficient.

3. Gargles are of little value unless the patient be trained to use them in a way to give greatest possible access to the pharynx and naso-pharynx. They can be used occasionally as an efficient means to cleanse the nose, pharynx and nasal chambers.

4. Douches are used chiefly to apply cleansing alkaline lotions to the nasal passages and naso-pharynx. Cleansing solutions are the most important topical applications in the upper air-passages. Much irritation is kept up by decomposed secretion retained mechanically in the various recesses of this region, and the douche is the most efficient means for its removal. Care must be taken that the fluid used in this way be not too large in amount or with too much force, so that infection might be carried into the middle ear.

5. Drugs used for other than cleansing purposes act chiefly as irritants to the surface of mucous membranes or by absorption into the tissues. Such medicaments are best applied as pigments or sprays. Both irritants and absorbents, in the hands of the physician, should be applied as pigments to the region which it is desired to affect. This is true even in the larynx and trachea. In the trachea, the medication may be injected through the glottis directly on the tracheal walls. Sprays should be reserved usually for use by the patient during the interval between local treatment by the physician, if it be desired to keep up a continuous influence of the drug.

6. We have evidence of the prompt absorption by the mucous lining of the air-tract of certain active drugs, as cocaine, adrenalin, stramonium and atropine. Experiments in regard to the relative absorbability of various drugs by this route are needed to establish a more certain and rational local therapeutics of the nose and throat.

7. It is not improbable that the massage attending the application of pigments to the mucous membrane is an important factor in producing reactions in the circulation and in the glandular secretion.

8. While we continue to lack experimental knowledge of the local effects in the upper air-tract of drugs topically applied, local therapeutics must remain inferior to surgery in accuracy of application and in efficiency in the treatment of most known diseases of the nose, ear and throat.—*Therapeutic Gazette*, May 15, 1904.

William F. Baker, A.M., M.D.

THE IMPORTANCE OF DROPSY AS A SYMPTOM.—(Morgan.)—The writer states that, in general, the importance and significance of this symptom can be interpreted as follows: (1) The initial dropsy of Bright's disease appears as œdema under the lower eyelids, seen on arising in the morning and disappearing by evening; (2) in valvular heart disease, myocarditis, lung or blood conditions, its first appearance is in ankles, appearing late in the day and increasing toward night; (3) hydro-peritoneum or ascites is the first dropsy due to failure of compensation in the portal circulation, as in cirrhosis of the liver. The local œdema resulting from small abscesses is of slight significance, but becomes increased in value, as in the œdema of the chest wall, suggesting empyema. The early œdema of the valvular heart diseases, such as is seen in the ankles, indicates the gradual weakening of the right ventricle, due to fatty degeneration of the muscle. This may be present for years, and not advance much until some sudden strain or intercurrent disease, such as bronchitis or grippe, overcomes all reserve force, and patient dies suddenly from pulmonary œdema. General dropsy or anasarca, due to Bright's or heart disease, may be recovered from if the patient be in the prime of life, possessed of good muscle fibre, and if the poison or factor that has caused the condition be removed. A patient who has once been the subject of a general dropsy, regardless of the cause, is in imminent danger of a recurrence and a fatal termination. When dropsy ensues during the course of any cachectic condition, as tuberculosis, cancer, it can be inferred that the patient is in last stages of the disease. Unless it responds to treatment the end is not far off. Dropsy is an important symptom and should receive especial attention.—*The Medical News*, April 2, 1904.

William F. Baker, A.M., M.D.

CORNEAL ASTIGMATISM AND CENTRAL CHORIOIDITIS IN MYOPIA.—A study of the relation of corneal astigmatism to central chorioiditis in myopia has led Senn to the conclusion that when a myopia is complicated by a degree of astigmatism with the rule of more than 2.5D., the eye becomes affected by central chorioiditis before the refraction error has reached a degree of 18D. On the other hand, when a myopia of 8D. is associated with central chorioiditis, then, almost without exception, it is complicated by abnormal astigmatism, in the great majority of cases, with a high degree of astigmatism.

He believes that the astigmatism acts as a causative factor, not only through reduction of visual acuity and the resulting vicious circle which favors the progress of the myopia, but that it, in conjunction with the stretching of the posterior pole occasioned by the nearsightedness, plays an inherent significant part in the ætiology of the destructive fundus changes.

That this part is so significant that it throws into the background all the other accepted predisposing causes (occupation, exhausting effect of disease, chlorosis, menstruation and climacteria in women). This is illustrated by the fact that medium grades of myopia (to 12D.) up to 30 years of age, almost without exception, are only affected with central chorioiditis when complicated by a corneal astigmatism of over 2D. with the rule, or an astigmatism against the rule. Senn, of New York City, September, 1903.—*Annals of Ophthalm.*

William Spencer, M.D.

A FORM OF NYSTAGMUS APPEARING UPON DIVERSION OF THE ATTENTION.—Bartels, of Marburg, observed this form of nystagmus in a 32-year-old man, whose eyes were otherwise normal, but who had suffered from inflammation of the ear in childhood. The movements which were at times present were horizontal and were increased during unconstrained conversation, and disappeared upon fixation or lateral deviations of the eyes. There were present slight tremor of the tongue and of the hand. In closing the eyes, fibrillary contractions occurred in both orbicular muscles. The author is at a loss for an explanation of the cause, unless the otitis could have been the starting point.—*Annals of Ophthalm.*

William Spencer, M.D.

THE TUBERCULAR LACRIMAL TUMOR.—Rollet says, tuberculosis of the lacrimal sac is rare and its occurrence even has been denied. He has collected reports on nine cases, of which four were personal ones. Hertel, he tells us, found four cases of tuberculosis of the lacrimal sac during a systematic examination of fifty-two cases. The author has detected tuberculosis of the sac four times in forty-six cases in which the sac had been extirpated. In the instances reported by the author he has excluded all but those of primary tuberculosis. In four of the nine cases there was tuberculosis of some distant part of the body, but there was never any pulmonic involvement. The infection had lasted from a few weeks to six years.

The lacrimal sac involvement begins, he says, with a fungus transformation of the mucous membrane in association with lardaceous or fibrocaceous formations. This condition may be accompanied with a purulent discharge which is followed by a "cold intraocular abscess" with fistulation, though more rarely a secondary ostitis. A swelling of the preauricular or submaxillary glands is, he thinks, of diagnostic value. Prognosis is good when radical extirpation is performed.

This procedure should be accompanied by dissection and not by cauterization or curetting. After removal of the sac sutures are not necessary, a simple dressing being sufficient.—*Annals of Ophthal.*

William Spencer, M.D.

THOUGHTS UPON A CASE OF TARDY OCULAR HEREDITARY SYPHILIS.—Seudral reports a case of hereditary syphilis in which interstitial keratitis appeared at seven years and was apparently cured.

A relapse occurred five years later, but the affection reached the deeper parts of the eye; this attack was accompanied with a gummatous formation on the tibia.

In regards to his cases the author concludes:

1. Hereditary syphilis frequently produces interstitial keratitis and often is cured, not leaving any traces of the local disease, no matter what treatment is employed.

2. Relapse is frequent, especially when the first attack has left corneal opacities. It is always grave, because it involves the deeper membranes. To avoid a mistake in prognosis no opinion should be given until all of the symptoms have disappeared. He considers that mercurial inunctions constitutes the best form of therapy; in fact, they are indispensable for at least one or two years' time—depending upon the severity of the case. Iodide of potassium, or all other treatment from which mercury is omitted, produces only an apparent cure and does not prevent relapses.

3. Hereditary syphilis develops on a lymphatic diathesis, thus explaining the tenacity of the disease as well as the indication at times of a combined treatment of iodine and arsenic.

4. The treatment of interstitial keratitis should be that which is usually used in hereditary syphilis. In the ocular manifestations of the disease, mercury given alone has offered better results than the combined form of treatment.

Potassium, which has a remarkable action on certain conditions of syphilis, has a very doubtful beneficial action upon the ocular manifestations of the disease.—*Annals of Ophthal.*

William Spencer, M.D.

COLD APPLICATIONS.—Locally used about the eye cold reduces the temperature in the tissues covered by the application, and to a lesser degree those very near to it. If the cold be in the form of ice and salt in thin rubber bag and there be no intervening dressing, the temperature of the tissue may be reduced to almost that of the medium employed. Other methods produce temperature somewhat short of this. Cold produces a reduction in the energy of the part, it dulls the perceptive power of the local nerves.

Inflammations exhibit a considerably slower or milder course, or are absorbed entirely. Cold contracts and slows the blood-current; it retards or inhibits the chemico-physical process of metabolism. The use of this as a therapeutic measure is clearly indicated in the early stages of acute inflammation of the lids and conjunctiva, either specific or traumatic, and in injuries to the iris and traumatic iritis. It also retards the excessive swelling of the lens substance after operative or accidental incision. Cold has also been reported as beneficial in cases of rheumatic iritis (Helfrich) with very considerable conjunctival swelling, and in syphilitic iritis (Schenck). It is to be remembered that cold by reducing the blood-supply to the conjunctiva interferes with and

may reduce its nutrition to the cornea. The first sign of danger to the cornea when using ice is a slight local or diffuse haziness, and this must be the signal to stop cold applications immediately. If this haziness is marked or fails to disappear promptly, heat should be substituted. It is never desirable to maintain cold up to the danger signal, but rather stop short of it.—*The Homœopathic Eye, Ear and Throat Journal*.

William Spencer, M.D.

DIONIN.—Darier admits that the use of dionin is painful and produces marked reaction, but says that in the latter fact lies its remarkable curative properties. He further says that some cases seem unable to bear the use of the drug.

He has employed it with marked benefit in retinal detachment, in chronic conjunctivitis and in both acute and chronic glaucoma, especially before performing an iridectomy for the same, because of the great relief from pain.

He has found its use valuable in the after-treatment of foreign body wounds of the cornea, in infectious ulcers, and in the infective complications of cataract extraction.

He has always made use of it in the after-treatment of cataract extraction when the wound is firmly closed; in parenchymatous keratitis in the early or late stages, and in subconjunctival hæmorrhage.—*The Homœopathic Eye, Ear and Throat Journal*.

William Spencer, M.D.

ADRENALIN IN CARDIAC ASTHENIA OF OLD PEOPLE.—Dr. A. S. Myrtle has obtained excellent results with adrenalin as a heart stimulant in two cases of cardiac asthenia in old persons. The first case was an old man upwards of 70 who had an attack of acute heart failure which no remedy seemed to relieve. Adrenalin was given in 20-drop doses every six hours with the happiest results, for after the fifth dose the attack was under control. The second was that of an octogenarian who also was suffering from acute asystolia; here after the third dose the disease was gotten in hand.—*La Semaine Médicale*, No. 18, 1904.

Frank H. Pritchard, M.D.

COCAINE MIXED WITH ADRENALIN IN LARYNGEAL SURGERY.—Dr. E. Escat, of Toulouse, France, in those cases where it is difficult to anæsthetize the larynx with cocaine alone advises mixing with a 10-per-cent. solution of this drug a 5-per-cent. ($\frac{1}{2}$ per cent.) solution of adrenalin. In three cases where he had been unable to remove polypi from the larynx under cocaine anæsthesia he succeeded with this mixture. In those cases with chronic congestion associated with hyperæsthesia and hyperkinesia of the pharyngolarynx he would urge its use.—*Ibidem*.

A MIXTURE FOR EARACHE.—Dr. Moure advises: Atropine, morphine, $\bar{a}\bar{a}$, 50 cgms., glycerin, 15.00. Pour a few drops into the external ear morning and evening.—*Iatrike Proodos*, 1904.

Frank H. Pritchard, M.D.

POSTURAL ARBUMINURIA.—Sir W. Broadbent under this term understands that group of intermittent albuminurias which remain after one has excluded nephritis in its earlier stages, or nearly cured cases of nephritis, undiagnosed heart diseases, albuminuria from fever, overnutrition, dyspepsia, arthritis, oxaluria, and where it is due to an admixture of various secre-

tions from different parts of the urinary and genital organs. What is characteristic is that the albumin appears in the urine as soon as the patient gets up in the morning, and, as a rule, disappears during the course of the day, and always as soon as the patient lies down. If he takes his breakfast in bed the albumin is not observed; therefore it cannot be due to food or be toxæmic. It does not seem necessary to assume the existence of a preceding nephritis following a febrile affection as the cause. On the other hand, the name, "functional albuminuria," which some writers have used, is also not appropriate for the patients, chiefly boys and young men who are preparing for examinations, otherwise present other pathological symptoms; their pulse is easily affected, varying both in frequency and tension; for example, in rising and sitting or lying; they faint in church or at athletic exercises, and often are members of neuropathic families.

The albuminuria is apparently due to the upright position after a night's rest in connection with a lack of cardio-vascular adaptation to the changed hydrostatic condition. Overexertion also gives rise to transitory albuminuria when the cardio-vascular bounds are passed.

The disease is very common and of importance to diagnose, as the treatment should be the very contrary of nephritis: good food, fresh air and plenty of good bodily exercise. Iron, arsenic, strychnine, quinine often aid treatment, while the constipation which is usual should be removed. Treated in this manner the outlook is good, for Broadbent has never seen it resist treatment nor go on to actual nephritis. If, on the contrary, it be treated as a nephritis with rest and diet it becomes aggravated, and the nervous disposition may develop into a real disease.—*Hospitalstidende*, No. 6, 1904.

Frank H. Pritchard, M.D.

A FATAL CASE OF CHOREA.—Dr. Babonneix, of Paris, reported to the Société des Hôpitaux of that city the interesting case of a young man of 19 years, a rheumatic, who was seized with delirium during the course of a severe attack of chorea, complicated with heart symptoms, and who died in a few hours. A short time before death he broke out on his lower limbs with a scarlatiniform eruption, which, as has been pointed out by several writers, almost always precourses a fatal ending. The necropsy demonstrated that the patient had died from an acute ulcero-verrucose endocarditis.—*La Semaine Médicale*, No. 18, 1904. (I had an interesting case of chorea recently. It was in a young, spindling and poorly-nourished girl of 12 years, of American parents, who first had what seemed to be catarrhal appendicitis; she recovered from this quite quickly under the salicylate of soda (Yeo's method), got about in fair condition, when she developed a wry neck. This was followed in two weeks by chorea of moderate intensity, with endocarditis. She gradually recovered under Fowler's solution, bryonia and macrotin, but with a vitium cordis remained.)

Frank H. Pritchard, M.D.

OAT FLOUR IN DIABETICS.—Professor v. Noorden has found that diabetics bear foods made from oat flour well; it may be given with fats and eggs. It may be administered in a soup containing 250 gms. of oat flour, 300 gms. of butter and a little salt; boil, let it cool, when the whites of eggs may be added. This is a daily amount, which should be taken in several portions. The starch of oats, hence, must be different from that of other cereals.—*La Nuova Rivista Clinico-Terapeutica*, No. 2, 1904.

Frank H. Pritchard, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

SODIUM CHLORIDE AND HYPERCHLORHYDRIA.—Excellent results have been obtained in the treatment of hyperchlorhydria by the reduction of chlorides in the diet. Recognizing the fact that the hydrochloric acid of the gastric juice must be derived from the sodium chloride of the blood, and this, in turn, from that of the diet, the natural deduction, borne out ably by experiment and practice, suggests the abstinence from sodium chloride in the treatment of hyperacid conditions. In many cases a simple reduction is all sufficient; in others cure is effected only by a special diet, chosen because of its naturally low saline content.

It may be added that injection of saline solution, that is, of sodium chloride solution, by the rectum seems to have a special tendency to increase the production of the gastric acid, and it is suggested that *hypochlorhydric* conditions might be so treated.—*Le Progres Medical* and *L'Art Medical*.

SODIUM CHLORIDE IN EPILEPSY AND IN SYPHILIS.—Along the lines suggested by the above paragraph, we have the established fact that the bromide treatment of epilepsy is found (by those who use it) to be more efficient when the chlorides of the food are reduced, and we believe the same to be true, also, of the iodide treatment of syphilis. One objection which has been raised against this plan of dechlorination, namely, that "demineralization" would predispose to tuberculosis, is groundless, the fact being that such "demineralization" does not exist. This non-existent bogey has, however, been provided for by the administration of sodium phosphate, 5-10 grammes per diem, it having been demonstrated that this salt in no way interferes with the free absorption of the bromide or iodide.

SODIUM CHLORIDE IN ŒDEMA.—The importance of sodium chloride in the control of the osmotic functions of the body is well recognized. When, for instance, in diffuse nephritis the free excretion of chlorides is interfered with, œdema results. Where, in these same cases, the chlorides in the body are reduced by catharsis, by diaphoresis, by the use of a diet poor in salt, *e.g.*, milk, or by use of other food prepared without the usual addition of salt, then the œdema disappears and the patient improves.

Massive saline injections have occasionally worked harm, and, it would seem, must do so where patients are already suffering from retained chlorides. Death has even resulted from such treatment. If in these cases, however,

sodium sulphate be substituted for the sodium chloride, the danger is evidently avoided, the flow of urine is augmented, and the increase of chlorination prevented.

SODIUM SALICYLATE IN CHOLELITHIASIS.—Dr. P. Jousset, in commenting upon an article by Dr. Chafford, criticizes the latter's recommendation of sodium salicylate as being valuable in cholelithiasis because of its antiseptic action. Dr. Jousset says very truly that sodium salicylate is not an antiseptic, and he explains its favorable action by its cholagogic properties producing, as it does within an hour, an increased flow of watery bile. Furthermore, sodium salicylate has value as an antipyretic, and it is to this dual action that patients owe their relief.—*L'Art Medical*.

OATS AND DIABETES.—Several cases of diabetes have been reported as rapidly "cured" by a diet in which oats form the prominent feature. Oats, 250 grammes; albumen, 100 grammes; and butter, 300 grammes, made up into a sort of soup, formed the daily allowance, being partaken of at intervals of about two hours. The sugar, it is said, rapidly diminishes to zero, acetone disappears, and the body increases in weight.

PANCREATIC EXTRACTS IN DIABETES MELLITUS.—Dr. P. Jousset reports, in *L'Art Medical*, a number of cases of diabetes successfully treated with pancreatic preparations, particularly with that prepared according to Brown-Sequard. Many of the unfavorable results obtained have been due to faulty extracts. The regular homœopathic treatment, with phosphoric acid, arsenic, uranium nitrate, etc., while occasionally giving very happy results, is regarded as of inferior value. Alkaline waters, Carlsbad, Vichy, etc., often relieve symptoms and produce some general improvement in the patient. The old school opium, salicylic acid, antipyrine, etc., produce only temporary relief. Opothrapy is regarded as offering great promise.

TREATMENT OF GASTRIC ULCER.—The value, and in some cases the necessity, of surgical interference is referred to. Repose in bed, absolute milk diet, succeeded by a long continued low diet, and the treatment of Walks of Prague (olive oil, starting at 50 c.c. and increasing to 200 c.c. per diem), all these are necessary and good. As regards medicines, the old school use narcotics, morphine, atropine, belladonna, cocaine, cannabis indica, while the homœopaths have many drugs (Hengstebeck names twenty-three), too many, the author says. Among the multitude he recognizes arsenic as a true ulcer remedy, atropine for the cramps, etc., and argent. nit. and bismuth subnitrate as accessories. The belladonna, cocaine and bismuth of both schools are truly homœopathic, even though the belladonna be given low, the cocaine in appreciable quantity, and the bismuth in massive doses. By such a treatment the heart is well sustained and the patient generally relieved. Dr. Boesser.—*Allg. Hom. Zeitung* and *L'Art Medical*.

SPARTEINE.—M. Morel has presented to the Société de Biologie a careful review, well substantiated by experiment, of sparteine and its action. He finds that in toxic dose it attacks the principal anatomic elements in the following order: The sensory nerves, the motor nerves, the striated fibres, the cardiac fibres, the plain fibres and the blood cells. Animals killed by sparteine die from paralysis of the motor nerves and the striated muscle fibres of

respiration, the heart continuing to beat after the respiration has ceased. In therapeutic dose the order of action is reversed and the unstriated fibres are first affected, the small bloodvessels are contracted and the blood-pressure raised. In somewhat larger doses the action on the heart is pronounced in the increase of vigor and in slowing of the beat. M. Morel concludes that sparteine is indicated in conditions of cardiac atony with vasodilation, and that it is contraindicated when the peripheral vessels are normal or contracted. *L'Art Medical*, in commenting on this article, suggests that while it may be used for its palliative effect under the conditions cited, that it may also be used for its curative effect, according to the law of similars, in cases of increased arterial tension.

In the same issue of *L'Art Medical* appears a review of a paper presented before the *Société de Therapeutique*, in which the authors, Pouchet and Chevalier, find that in moderate doses sparteine has no effect on the blood-pressure, while that in larger and toxic doses the blood-pressure is lowered. Sparteine offers many contradictions.

THE KIND OF LOYALTY THAT COUNTS.—The annual alumni reunions are all right. It is good for the cause that we can meet old comrades once a year, and that we shout for the flag and show our enthusiastic loyalty to our alma mater. But the loyalty that counts is the loyalty that is shown in our every day walks. After the red fire has burned itself out, and after the band has ceased playing, and when we have once more gotten down to the grinding routine of work. The loyalty that makes us quick to resent the implied or outspoken slight to our alma mater, or the unfair criticism of her faculty. The loyalty that causes us to try earnestly to demonstrate to our patients and to the world—the advantages of the homœopathic method of drug-selection. The enthusiasm that makes us regular in attendance at society meetings, even although we are there at a personal inconvenience. The loyalty that makes us write and speak bravely, whenever we see a chance to further our cause. The interest that causes us to influence young men to study homœopathy. These things make up the sort of loyalty that counts. And don't forget it, reader.

A STRANGE FACT REGARDING MORPHINE.—In the *Journal of Inebriety*, Dr. William Lee Howard tells some strange things regarding the effects of morphine. Among his statements he mentions that many married women, in what custom has called the higher class, have learned from the Continental women of the *haute monde*, who have through some subtle channel received the information from the *demimonde*, that a half grain of morphine at bedtime and another half grain upon arising will effectually prevent pregnancy. This writer asserts, with sorrow, that he has had to treat cases of the morphine habit, which he could trace directly to this insidious half grain. As a historical fact, it is interesting to note that in the *Kama Soutra* it is forbidden the Indian maid or wife to use opium in any form until after the menopause, because the use of that drug prevents pregnancy. As a natural consequence of such *informatory* regulations, we find Indian writers stating that young girls and women secretly resort to quacks for opium pills. Thus does another horror disclose that "ignorance is sometimes bliss."

THE ACTION OF NICOTINE.—The action of nicotine, as is well known, lies between that of the bromides and digitalis. It soothes the nervous-system.

but causes a powerful and rapid contraction of the vessels and a rise in blood-pressure. Among its dangers, therefore, one of the best known is angina pectoris, perhaps due to spasm of the coronary arteries. Through prolonged use, it undoubtedly promotes the development of arterio sclerosis. As there can be but little doubt about the truth of these statements, the moral is obvious. One of the greatest mistakes that we make is to suppose that arterio sclerosis is a condition that begins about middle life. It *begins* much earlier than middle life. If to the use of tobacco we add the habitual indulgence in small amounts of whiskey, and the worries and cares of an active professional career, arterio sclerosis *ends* about middle life or a little later. It becomes the duty of every medical man to flag those patients whom he has reason to believe are traveling *via* the catastrophe route.

ALCOHOL IN THE AIR.—Some homœopathic physicians while abroad had occasion to visit the great wine vaults of France. During their visit they noticed a strange and unusual feeling of exhilaration, which was subsequently followed by a deep coma. Upon awakening from this, they suffered from languor, headache and uncertainty of gait. In relating their experiences to their club friends, upon their return to America, they took great pains to assure their hearers that they had drank no wine—or at least that they had drank very little—not enough to have produced such unpleasant symptoms. Their friends patted them upon the back and replied: "It's all right, old man;" but advised them to cease narrating this particular episode of their trip, as some evil-minded person might doubt their veracity. Circumstantial evidence is often as doubtful as it is damning. In a recent number of *Lancet*, it was stated that the air of great wine vaults is loaded with volatile ethers, and that practically one ounce of proof spirits was present in every five cubic feet of air. Persons who work in these cellars are said to be in a chronic state of intoxication and show all the symptoms of alcoholic poisoning. In London the men who spend many hours in badly ventilated places, reeking with the odors of spirits, are very unhealthy and become practically drunkards, even without having used spirits by the mouth. So well established is this claim that the authorities of Prussia and of France have passed laws forcing all such places where spirits are sold or manufactured, or even stored, to be most thoroughly ventilated at least twice each day. In the bonded warehouses of this country the revenue department having already noticed this evil has taken measures to correct it. The Retrospect man offers his sincere felicitations to those eminent colleagues who have remained so long under a cloud—of volatile ethers.

DANGER IN CAUTERIZING THE THROAT WITH NITRATE OF SILVER.—Dr. Floyd Clendenning has recently sounded a warning note relative to the frequent use of silver nitrate as a local application for inflamed throats, which, if it be true, is not unworthy of the earnest consideration of those who are in the habit of using this drug freely. The author claims that the nitrate, locally applied, is very apt to drive the inflammation down into the bronchi, setting up a bronchitis which may often become fatal. He mentions instances in which death followed. He says that while the nitrate may be used several times without untoward effects, sooner or later the exceptional case will be encountered. Several times we have overheard physicians, who had lately returned from abroad, recounting the unfortunate effects of the rather free use

of silver nitrate in European institutions, so that Dr. Clendenning's warning, which was quoted in *Medical Recorder*, may not be amiss. This mention of the evil effects of nitrate of silver brings to mind one of its legitimate and beneficial uses—in antidoting the effects of too much sweet food. It may be news to our readers that it has been discovered by someone, wise beyond his years, that young ladies suffer from a “disease” characterized by an inordinate craving for bon-bons and sweets. This is well known, but not that this disease has been named—*opsomania*. The remedy recommended is hypnotism. With the modern hypnotist correcting such frailties of man as dipsomania and pyromania, and such degeneracies of womankind as opsomania, things are looking brighter in the social world.

A STUDY OF BERBERIS.—In *The Clinique* for May may be found an admirable *resume* of berberis by J. T. Kent, M.D. Perhaps the author does not state much that is unfamiliar to our readers, but his method of presenting the important features of the remedy is certainly most felicitous. After one reads such articles there comes a desire for further knowledge, and this is what so many of us lack—a happy style, exciting and sustaining an interest in the subject which we are trying to elucidate. We think, if once our teachers succeed in eliminating the somniferous elements from their lectures and papers upon *materia medica*, that there will be an awakening of interest in such subjects. Dr. Kent starts with the remark that berberis, like benzoic acid, is a remedy that fits into the gouty and rheumatic spheres; but it corresponds rather to such gouty conditions as do not determine themselves to their proper places. Perhaps the condition of the berberis patient, which is anæmic, feeble, pallid and sickly, may account for this. At all events, we find that gouty deposits in the joints have not as yet occurred, but that the trouble is, as it were, wandering about the economy. *Wandering* pains in the various nerves and nerve sheaths is then a berberis indication. Twinging, pinching, tearing, stitching pains wandering from place to place, in old gouty subjects who are pallid and sickly and chilly. The kidneys, liver and heart are all more or less disturbed in this type of gouty patient. Irregularities of the urine,—now copious and light, again heavy and scanty urine. Finally, the gouty deposits will become prominent in the smaller joints, and we shall have soreness of those joints. In such a case, however, one must think of such remedies as ledum, sulphur, *æsculus* and *lycopodium*, rather than of berberis. Now we think that this is all very delightful and very likely to stick in the reader's mind. And after all it is not so much what one reads that counts, as what sticks in one's mind after the reading. Dr. Kent has something to say regarding fistula in ano, and he speaks in no uncertain tone against operative procedures. If a patient has a fistula, the author thinks that it may, and should, be cured by internal medication, rather than by an operation. If it be closed up and the patient is leaning towards phthisis, he will develop the latter disease. If he should have a tendency towards nephritis, the operation will hasten the development of that affection. Occasionally so much time elapses that the “ignorant” physician may not see the relation between the two. This opinion will probably not meet with the sanction of everyone who reads it, but Dr. Kent does right to speak his mind nevertheless. We wish it were possible to have such vexed questions decided once for all. The problem seems simple: “Does removal of a suppurating

tract in the neighborhood of the anus hasten the development of any latent disease?" Our own experience leads us to suppose that it does, providing said tract is tuberculous in nature. Otherwise not. We have always supposed that a suppurating tract of any extent rather predisposed to the development of one form of nephritis. We should therefore find it difficult to see why its removal should have the same effect. What a muddle.

A JOKE WITHOUT A POINT—TO-DAY.—We all remember the ancient jest cracked at the expense of those old homœopaths who used to believe in the action of medicines administered by olfaction. It runs something like this. After the patient had stated his case in detail, the old physician placed a vial of medicine before his nostrils and asked him to inspire deeply several times. This was repeated on several visits, until the patient inquired what the idea might be. His physician thereupon informed him that the therapeutic emanations from the vial of medicine would go through his system and work an efficient cure. It is related how this same patient, at the conclusion of the treatment, allowed his physician to inhale deeply of the fragrance of several bank notes, assuring him that the inhalations would ultimately produce a more plethoric bank deposit. Another patient was telling us the other day that he went regularly to a physician who each time placed an insignificant-looking little bulb in front of his nose, so that its therapeutic emanations might reach an ailment thereupon. At the conclusion of the seance the patient had been accustomed to hand the physician a five-dollar bill, which the latter invariably laid smoothly in a leather case and then replaced the whole over his right gluteal region. In the case last mentioned there seems to be a steady improvement, and we presume the doctor is doing nicely also.

AN ORIGINAL PROVING OF THE DRUG, *STELLARIA MEDIA*, BY THE UNIVERSITY OF MICHIGAN SOCIETY OF DRUG-PROVERS.—Right upon the heels of the admirable proving of *Xerophyllum*, by the students of the Hahnemann of the Pacific, comes this original and highly satisfactory research by, we presume, the seniors of Ann Arbor. *Stellaria* need no longer be administered empirically in rheumatic affections, for which it looks like a promising remedy. It induces a condition of stasis and congestion, and the accompanying sluggishness of all functions characteristic of the constipation diathesis, coupled with shifting, intermittent, rheumatoid pains. Many of its stomach, liver and bowel symptoms point to congestion, the morning aggravation and the conditions of amelioration and increase being almost identical with *nuxvomica*. The rheumatoid manifestations, their relief from motion and aggravation from warmth, resemble closely those found in the pathogenesis of *pulsatilla*. One fact came out in this proving that we think will doubtless appear frequently in future experiments with new drugs. Small doses were quite sufficient to induce well defined and pronounced drug effects. Larger doses of the mother tincture did produce their symptoms more quickly, but for clear and sustained drug pictures we shall have to prove the dilutions; or, so it appears. The earnest efforts of these earlier provers of the twentieth century are deserving of all praise and encouragement. Bravo! Encore! The excellent compilation of the results of this proving was made by Dr. A. E. Ibershoff, from whom the pamphlet may doubtless be obtained. It is hoped that the future publications of the Society of Drug-Provers will be published uniform in size with this one, that we may conveniently bind them. This proving represents the labors of nineteen workers, male and female, for a period of four weeks.

THE HAHNEMANNIAN MONTHLY.

AUGUST, 1904.

PRESIDENTIAL ADDRESS.

BY JOHN PRESTON SUTHERLAND, M.D.

(Delivered before the American Institute of Homœopathy.)

Members of the American Institute of Homœopathy, Ladies and Gentlemen :

The annual assembling of the members of the American Institute may fitly be called the "Old Home Week" of homœopathy in America. The Sixtieth Birthday of the Institute's honorable and fruitful life, which we now are assembled to celebrate, assuredly gives her the title of Mother of homœopathic organized life on our side of the sea. To return to her hearthstone, that of the oldest national medical organization in America, may well be reckoned, for the loyal homœopathist, a professional home-coming. That excellent and now so widely prevailing custom of observing "Old Home Week," our country over, is productive of a doubly good result. To those returning to the family hearth it means a renewal of family ties; it means a renewing of the ideals of youth; it means the wholesome realization that one is a part of a whole, and not an isolated and selfish unit. On the other hand, it means to the old home itself the inrush of the larger world beyond its own borders. It means learning at first hand of the marvels of the year's progress, adjusting old ideas to new revelations of fact. And these things are precisely what our annual assembling as children of the venerable American Institute of Homœopathy

ought to mean to the Institute and to ourselves. It ought to renew old friendships and associations. It ought to keep green the memories of those, our predecessors and exemplars, who here on earth will meet with us no more. It ought to renew our early ideals of broad and useful living along the lines of our mutual and beloved work. And to the Institute itself our home-coming ought to mean the enlargement of our common view; the assimilation of new truths, and the fitting of them into the great general scheme of truth that we have already seen and accepted. The spirit of "Old Home Week" is a good one in which to open our present deliberations and to enter upon our enjoyments. As the son of the great household, upon whom for the hour falls the duty of speaking its welcome, I greet you with all affectionate heartiness to its hearthstone, and I ask you to aid me to make this particular home-coming richer than any that have come before it, in growth, in harmony, in service, in wisdom, and in strength of devotion to the cause we have in common, as children of the Institute.

It is natural and fitting that, on the first evening of assembling at an old-home hearth, the talk should travel far backward and far forward, taking as long views as may be, in both directions; so I would ask you to look far backward into the causes of our coming together, and far forward into the largest uses that we can serve in coming together.

Who founded the American Institute of Homœopathy? A body of *physicians*. That is what we are apt to forget in answering that question on quick challenge; we are far more apt to say . . . a body of homœopathists. True, the founders were homœopathic physicians, but they were that secondarily, though very essentially. First of all they were *physicians*. They were men well grounded in all the medical lore of their day; they were men who had studied that lore under exactly the same instruction as had any men then bearing the title of physicians. Broadly speaking, all that any physician, as such, then knew, they knew. And knowing, they did not find it sufficient for their needs as healers of the sick. Let that never be forgotten. The founders of homœopathy did not become homœopathists as an easy road to riches or to notoriety, as not a few of our unbrotherly professional brethren still hold even to-day. They did not become homœopathists because they were not intellectually

equal to mastering the knowledge possessed by other physicians of their day, as again is too often claimed. They had already mastered that knowledge, and not a few of them stood high in existing medical councils. They became homœopaths because, knowing all that was known by the medical science of their day, they did not find that all sufficient to treat the physical ills of humanity as successfully as they felt the physician should be able to treat those ills. They believed that in the homœopathic law of cure they saw an advance upon any method of cure then in use. And they resolved to give that law a trial in their daily practice. If they could have been freely allowed by their brother physicians thus to test this new article of their medical faith, there would never have been separation, of the homœopaths' making, in the great army of healers of the sick. They were not so allowed. For resolving to test the homœopathic law they were met with a persecution that it is no part of my purpose to recall to-night. This persecution forced them into what we may call professional segregation. The toleration, nay, the encouragement, extended since that time, and to-day, to the practitioners and exclusive practitioners of innumerable specialties of the vast field of medicine, was violently denied to those physicians, our professional ancestors, who sought to become *therapeutic specialists*. Let us keep this fact well in mind, and then we shall never lose sight of that other fact, that in electing to become a therapeutic specialist, then or to-day, no physician loses, by any logic that can be summoned, his right to be a physician-at-large; his heirship in every medical discovery of his own or of past ages; his right to experiment along any line that may seem wise to him in the treatment of his sick patient. A man does not lose the right to be reckoned among physicians, with every claim to the fullest recognition and privilege that great title implies, because he chooses to cultivate as peculiarly his own one small corner of the vast medical field. Nor does he lose his claim to share in every fruit of that field if he offers freely to his fellow-laborers in other corners of it the fruits he is cultivating in his own corner, and can prove to them the worth of what he offers. As well advance the economic insanity that the man who raises potatoes must live on potatoes exclusively, or the man who deals in wool be denied the wear of cotton, as to claim that the man who

practices a medical specialty is thereby debarred from the fruits of the field of medicine at large. But what the laborers in the field of medicine have the right to claim is, that the aspirant to recognized ownership of a corner of that field shall first prove his knowledge of the use of tools, and of the character of the soil in which he is to work, as antecedent assurance that the fruits of his raising will be worth a place in the medical market. This metaphor easily translates itself into fact. No man can justly claim a right to recognition as a laborer in the medical field who cannot first demonstrate his knowledge of those fundamental sciences on which, as on an indispensable foundation, the art of medicine rests. He must have mastered the sciences of anatomy, physiology, chemistry, histology, pathology and pharmacology. No man ignorant of these things is a physician; and until a man is first a physician, he can never be accorded recognition as a medical specialist. Our medical ancestors, the first homœopathists, met these requirements fully and triumphantly. All that was known of the fundamental sciences of medicine they knew. Their right to become specialists was, therefore, clear. And we who call ourselves homœopathists to-day have also fulfilled these conditions. All that any physician of to-day is required to know of these fundamental sciences we are taught in our homœopathic colleges. Homœopathic colleges, indeed, may boast of having led those of any other school in their requirements as to the length of time a student must compulsorily spend in acquiring his knowledge of those sciences. As physicians, we have a right to our share of every fruit grown in the medical field. We are also specialists, with our own long-claimed corner of that field to keep under careful cultivation, that we may offer from it worthy fruit to the common market. Is it said that no one not resident in our particular corner has any use for our fruit! It may be true that not much of our fruit is openly in request in the public medical mart, but as it is none the less pretty constantly found on the tables of fellow-laborers whose fields neighbor ours, we are forced to the conclusion that what is not bought by day is sometimes plucked by night. I need not, perhaps, interpret this metaphor to you. You have only to study the therapeutic "discoveries" chronicled in the journals of other schools than our own to follow it easily.

We would do well to repeat, as a *credo* to be recalled on the eve of any labors we undertake in common, the fine and satisfying definition that our Institute *Transactions* bear on their title-page . . . "A homœopathic physician is one who adds to his knowledge of medicine a special knowledge of homœopathic therapeutics, and observes the law of similia. All that pertains to the great field of medical learning is his by tradition, by inheritance, by right."

"His knowledge of medicine." What is medicine? It is a curious fact that while most of the States of the Union have laws for the regulation of medical practice, there does not exist an authoritative legal definition of medicine. Perhaps, as satisfying a definition of it as does exist, is to be found in the *Standard Dictionary*, in the phrase which defined it as "The healing art; the science of the preservation of health; and of treating disease for the purpose of cure." "The Art of Healing;" that was a phrase dear to Samuel Hahnemann. Healing the sick; that is the work to which we are pledged by the fact that we are physicians. Not to uphold a theory, however old or new; nor to dogmatize, but to heal the sick. Not, please note, to heal the sick exclusively by means of drugs. It is important to have that clear in our minds, for we who are physicians too often are guilty of that confusion of thought which is almost chronic with the laity; the inseparableness of the practice of medicine from the administration of drugs. There are a great many worthy and successful practitioners of medicine to-day, the very least part of whose work has to do with drugs at all. This may not be a very palatable reflection to those homœopathists whose devotion to the practice of medicine does not go far beyond the exercise of their own therapeutic specialty. But it is none the less a fact immensely to be reckoned with. Nor can we escape reckoning with the fact that the greatest practical advances in the healing art for the last half-century have *not* been made along the lines of drug-administration. Do you doubt this? Look over the records of recovery from disease made under treatment where drug-administration has been reduced almost to a negligible quantity, or has been dispensed with altogether; the cures made by surgery; by diet alone; by hydro-therapy; by the various forms of manipulation; by the open-air treatment; by electro-therapy in

its all but miraculous advances along the lines of high-frequency currents and vibratory stimulation; by the antitoxins; by psycho-therapeutics. What advances has drug-administration made to compare with the advances made by these? Our brethren of the old school return to this query an all but wailingly pessimistic reply. Said Dr. Frank Billings, in his Presidential Address before the American Medical Association, only a twelve-month ago:

“Much as has been accomplished by experimental medicine in a comparatively brief period of time, there are vast fields to which the method has not been applied. With most of us our present methods of clinical observation enable us to do little more than name the disease. In the vast majority of infectious diseases we are helpless to apply a specific cure. Drugs, with the exception of quinine in malaria and mercury in syphilis, are valueless as cures.”

As homœopathists we are happy in being able, alike by authentic statistics, and by long and varied personal experience, to give a much more cheerful judgment on the usefulness to-day, and in a long past, of drugs, administered under a law. Here is our proof that as specialists we are making our specialty subserve the common store of medical knowledge and the alleviation of the sufferings of our fellow-creatures. But while reiterating and rejoicing in this fact, we must yet ask ourselves, What progress has homœopathy, the therapeutic specialty, made in the last twenty-five years, that is at all commensurate with that made by the majority of the specialties already named? Understand, please, that I do not mean by “progress” advance along the lines of public appreciation or pecuniary success, but progress along the lines of broadened therapeutic resources. It is much that our remedies applied under our law still so largely hold their own, approving themselves by their success in curing diseases. When we compare this truth with the fate of the remedies twenty-five years ago so highly vaunted by our brothers of the old school, and to-day, by so high an authority as the president of their national association hurled in a mass into the waste basket of dishonored oblivion, we have no reason for despondency. As homœopathists we have no reason for despondency that other specialties have out-run our own in relative progress in a half-century,

since all those other specialties are our gleanings-fields, our personal resources when we think of ourselves primarily as physicians. Every progress made in medicine is our progress, since by it we may profit in equal measure with any of our brethren, in our work of healing the sick. There have been periods when factions have held that a homœopathist was false to his calling, if he employed in healing the sick, any other resources than those offered by the drug administered under the law of similars. Those periods have fortunately passed; those factions practically no longer exist. However, the not yet extinct prejudice of our brethren of other schools may vehemently deny it, we are essentially at one with every educated physician, whatever his specialty in medicine. We need not talk of "amalgamation" with the mass of the medical profession as a future possibility, dependent on our yielding our special medical title. We *are* amalgamated with the true healers of to-day and of all time past and to come, when we claim as our own all knowledge that physicians can possess in common, and the right to employ all means that time and science may reveal for lessening the sufferings of humanity. Is there any one calling himself a homœopathist to-day who will claim that the use of a drug alone, administered along the line of similars, will cure *every* diseased condition as quickly and surely as *any* other means known to the medicine of to-day can cure it? I venture to say there is not. If there be, he must find himself ill at ease indeed in the American Institute of Homœopathy, so much of whose time is profitably occupied with the deliberations of special societies which exist to cure diseases by means not primarily those of drug-administration. Is there any homœopathist to-day who claims that he can select a drug, under the law of similars, which will achieve the results of the fresh-air treatment in tuberculosis; of surgery in pathologic conditions requiring the knife; of saline injections in collapse; of diet in diabetes, gout and scurvy; of antitoxin in diphtheria; of the dessiccated thyroid in myxœdema; of adrenalin in hæmorrhage; of psychic therapy in certain forms of neurosis; of hypnotic suggestion in certain hysterias; of the X-ray in epidermoid cancer and lupus; of manipulative treatment in certain muscular affections? I again venture to answer, no; and to assert the necessary corollary of this admission that there are

few homœopathists indeed who would ignore the obvious duty, when faced with a case of any of the above referred to maladies, of adding to whatever benefit he was achieving for his patient by the use of a carefully selected homœopathic remedy, the immeasurably more assured benefits of the treatments above referred to, each in its appropriate field of action. Would the homœopathist in doing this be advertising the inefficiency of his own specialty? It is hardly conceivable that such a claim can be made. Surely no one, outside the advertising circulars of a vender of quack remedies, claims to-day that for every disease there is a single cure-all. In admitting the limitations that we share with every other specialist, we assert the privileges we share with every other physician.

Is it a matter for regret that in the ever widening history of medical specialization, what I have already called the segregating process should so continually obtain? From any sane or far reaching view-point, emphatically no! Spencer's famous law of cell growth and reproduction may well be believed to apply to the cells of knowledge as well as to those of more material sort. Says Spencer: "A cell increases in bulk, as the cube of its diameter; in surface, as the square of its diameter."

The obvious outcome of this inevitable process is that there comes a time when the demands of the bulk exceed the power of the surface to supply. The consequence must either be death or segmentation. Two bodies take, by segmentation, the place of one, each unit with a surface of its own. Is not this entirely true of the bulk of knowledge? Slowly growing, from within outward, there comes a time when segmentation takes place, and two bodies stand where one stood. This is inevitable, if all the truth which has developed is to have means of manifestation. Hence differing religious creeds. Hence differing medical denominations and specialties. Disruption as a means of growth is nothing to lament. So that no part arrogates to itself the title and privileges of the whole, the process of segmentation, of specialization, is wholly beneficent in result. Our ancestors in medicine, when the moment of their segregation came, found no recognition of their right to a life separate from that of the parent body. That was and is regrettable. What would be infinitely more regrettable

would be for us, their descendants, to emulate the unwisdom that refused them that recognition. Let us, in this our day, watch the new processes of specialization with calm and acquiescent eyes. Let us ask of any medical specialty the one question: does it heal any form of sickness more quickly and more permanently than any method already in use? Let us ask of any specialist: is he first a physician? Here I take it is the key to problems of medical legislation. To face with no dogmatic challenge curative systems that claim a right to prove their efficacy on whatever patients are willing to try their efficacy. Merely to demand of those who desire to practice such systems, that they be and approve themselves physicians, well grounded in the knowledge of the fundamental laws governing the life of the complex human body. This assured, admit them to the field of medical practise, and watch the results of their work. Surely the most radical defendant of the rights of individuals can see no tyranny here. The community demands that no man shall practise as a pharmacist unless he can show the license that proves his familiarity with the properties of the drugs he dispenses. It demands that no man shall practise as an engineer unless he can show the license that proves him master of his steam and his steel. Is it more tyrannical for the community to demand of every one who would practise as a physician, *a healer of the sick*, that he first demonstrate his understanding of the laws governing the human body with which he asks to deal? To demand less than this, to admit fanatics and charlatans, ignorant of the bodies they are tampering with, into the field of medical practice, is to put the community at large into obvious peril. I need but to instance the risk to the community of allowing a case of smallpox or scarlet fever, or diphtheria to fall into the hands of those either too ignorant to recognize the character of the disease or too fanatical to admit its existence. No; let us as physicians insist by every influence that we can command that none but qualified physicians shall have a right to recognition in the field of medical practice; and then as specialists in that field, let us accord respect and intelligent interest to the work of every other specialist in that field.

Is this too large a liberality to ask of you? Are there certain specialties I have already mentioned, to which you are

doubtful if thinking men and women are justified in according any measure of credulity? Do you hesitate to admit, for instance, the claims of the almost innumerable varieties of psycho-specialists, because their methods seem too ærial and indemonstrable? Neither time nor inclination permits me to enter here into any lengthened argument for or against the possibility of distinctively psychic means for the cure of disease. But I cannot forbear a suggestion or two, which I leave for you to ponder at your pleasure. Has it ever occurred to you that any physician who knowingly gives a placebo to an hysterical patient, which placebo serves its healing purpose, has accomplished his cure by distinctively psychic therapy? Can you deny that this is the case? And when he keeps the knowledge of this fact from his patient, and in not infrequent instances from himself, is he the superior or the inferior of the specialist who treats his patient by distinctively psychic means, with that patient's full knowledge and assent? I but ask the question; in answering it, weigh the justice of ridicule or persecution of the habitual practitioner of psycho-therapy, by those who employ the same therapy occasionally and unconfessedly. Is there here no possible gleaning by night in a neighbor's field, such as we agreed awhile ago we ourselves sometimes suffered from? One more word in this connection, and a somewhat more serious one, to which I ask your serious attention and consideration. Is it not possible, I say only possible, that there may be rounds in the ladder of consciousness too elevated for ordinary sense to climb, yet to be scaled by senses of which not many of us are as yet practically aware? May there not be powers too high and subtle for manifestation to the ordinary sense, that can yet make themselves manifest to specially cultivated sense? The lowest of the recognized five senses, through which the universe outside ourselves manifests itself to our consciousness, is that of touch. Touch is our ability to apprehend, by means of its direct and material contact with certain nerve fibres, a form of energy manifesting itself through a solid mass of matter. This is the lowest round on the ladder of consciousness, requiring for its ascension only a material object and flesh with which to bring that object into contact.

The second round in our ladder of consciousness we call

taste. Here indeed we have material substances still to be apprehended before the act of consciousness can be complete, the round of the ladder ascended. But note that this matter must be in higher form and manifested through a more subtle medium than that which appeals to the sense of touch. Touch deals with solid substances; taste refuses to deal with other than liquid ones; matter in solution. We have mounted a step, we are using a sense that can apprehend, nay that demands a finer and subtler medium for matter to use in making its appeal to the consciousness. Another round and we have reached the sense of smell. Yet again we have changed and rarefied our medium for the appeal of matter to nerve. We have climbed above the liquid; we have here matter in suspension in a gaseous medium, appealing to a sense so delicate that it can receive this suspended matter through a medium that is invisible and intangible. Here is an appreciable upward step indeed; and now we climb, if not far, yet fast. For our next round is that we call hearing. Here we are emancipated from matter altogether, as matter is ordinarily understood. Here the universe makes appeal to our attuned senses, through a medium of air alone; through mere energy in motion, manifesting as vibration. Brought into realization, have we not here a fine and wonderful thing, which yet is a most familiar experience? Have we not climbed fast and far? But we may make one more step yet, nor stand above our reassuring experience of every day. We climb the round of sight. Here we have energy emancipated from solid, from liquid, from atmospheric media; here we have as a medium only that mysterious thing called the ether; as far above the air as that is above the liquid, or that above the solid. Here we stop, or do we stop? Would it not be more rational, more logical, to say not, here we stop, but here we for the moment pause? Are we prepared to say that at the sense of sight there ceases arbitrarily, this wonderfully, subtly, exquisitely graded ascent, up which we have thus far been led? Has life energy lost its power of further, higher manifestation? Has humanity no senses by which that life energy in higher manifestation can be apprehended? Let us imagine a form of life which has not yet, in its evolution, mounted above the first round of our mystic ladder, whose sole sense is that of touch. If it could be conveyed

to such forms, that beyond touch there was capacity for taste, for smell, for hearing, for sight, what answer do you fancy that creature possessed of but the one sense of touch would make to these assertions of its own latent powers? Do you suppose it would make a widely different answer from that made by many of us, when we are asked to consider the possible existence of a sixth sense, a seventh, a thousandth sense which mount above our five senses, as they mount above each other?

Thus far in our talk, I have spoken to you largely as a physician to physicians. Now, for a few moments, let me speak to you as a homœopathist to homœopathists. Let us, for a little, turn to our own special corner of the medical field, and talk of family matters. What are we, as homœopathists, contributing to the work of the medical field at large? What are we doing to justify our claim to be therapeutic specialists? We cannot escape these questions; and it is better that we should ask them of ourselves and of each other, than that the world outside our corner should ask them of us.

What are we giving to the field at large? We are giving what we have long given and we are giving it with the confidence in its worth only the testing of years can bring. We are giving remedies for whose efficacy we have scientific warrant. We are giving remedies whose worth we have tested by scientific methods, and tested for ourselves, and which can be proven as to their pathogenetic powers, by any scientist curious to do so. In this respect alone we justify our right to continued existence as homœopathists. The drug-giving physicians of other corners of the field can bring no such claim as ours. They know no law under which remedies can be administered for the cure of the sick, other than that of loose empiricism. The drugs and combination of drugs that they employ are not only not chosen as the result of their own study of their properties, but are used by them many times in total ignorance by the prescriber, of the very names of the drugs he is administering. Is this an incredible statement? You have only to read carefully one week's contribution to your mail by the pharmacists who make a specialty (and how many of them do not?) of "elegant, ethical and synthetical pharmaceutical preparations," for the cure of everything under heaven. The component parts of these specifics they shyly refrain from men-

tioning, yet despite that fact they present ardent testimonials from physicians of unimpeachable standing as to the power of the specifics. Reflect on this and you will not find my statement incredible. Ponder Dr. Billings' statement, which I have already quoted, on the non-reliability of every drug but two, in use by all allopathic schools to-day, and then ponder the fact, demonstrated by a study of their magazine literature, of the number of drugs they habitually employ, and I think you will admit the need as crying to-day as ever before, of therapeutic specialists who know what drugs they employ, and what the properties of those drugs are, as proved by their action on the healthy body, and under what law they can be administered, to secure an all but uniform result. We may say, indeed, to secure a uniform result, when we subtract occasional temperamental idiosyncrasies of the patient, and certain occasional errors of diagnosis of the physician; such errors as the failure to recognize a condition that calls for special treatment outside the domain of drug-giving at all; for instance, a headache directly due to eye-strain.

We have not outlived the world's need of us. We have not outlived the need of our continuing as therapeutic specialists. Nor are we departing, as is sometimes woefully claimed, from our faith in homœopathy and its laws, because we have in our ranks many specialists who treat exclusively given diseases, and treat them largely by means outside the domain of drug-administration. There are few if any of these our specialists who do not use the homœopathic remedy as the most valuable adjunct of their treatment as a whole. In a series of questions I recently addressed to many of our specialists, with this aspect of my subject in mind, and which were fully and courteously answered, many interesting and germane points were brought out. The question, for instance, as to whether in their specialty they found the homœopathic remedy of practical use, elicited a universal and warm assent. The general opinion is well epitomized in the following quotation from the reply of a well known specialist in diseases of the eye and ear:

"Since I began practising, I have constantly depended upon my drugs to aid me in the treatment of my patients. Perhaps I do not depend on the drugs alone, but I do feel they are of the greatest importance in many eye and ear conditions, and I

would be greatly handicapped if I did not have their aid. This is particularly the case in intra-ocular diseases: *i.e.*, iritis, choroiditis, and the various conditions of the retina and the optic nerve. Here the homœopathic specialist has everything to give his patient, while his allopathic confrère has to depend only on general lines of treatment of a dietetic and hygienic nature."

So much for what homœopathy is doing for its specialists; what are its specialists doing for homœopathy, is a question of germane interest. This also has suggestive answers. For one thing they are fighting the battles of homœopathy on the material side, by compelling recognition of the fact that homœopaths are capable of as telling work in special fields as are their old school confrères; and thus enlightening prejudice on the score of our limitations. For another thing, they are sifting and specializing our materia medica, of which more presently; for they are making more use of, and consequently doing more to establish in a month the powers of our drugs having special symptoms, eye and ear, skin, kidney symptoms, for example, than the general practitioner would be likely to do for such drugs in a year. For yet another thing, as was pointed out in one of the answers I received, homœopathic specialists have enlarged our knowledge of the use of homœopathy through the publication of numerous text-books relating to their specialties, which deal fully with remedies homœopathic to the disease they specially treat. Thus homœopathy ministers to our specialists, and they to it. A good and cheering record! Thus far our outlook has been all cheer. Not so much can be said, perhaps, when we have asked ourselves the questions: what progress has homœopathy made, on its therapeutic side, in the last quarter-century? Is homœopathy making any progress in worth commensurate with its progress in success? I need not answer these questions, but it is my duty to ask them. It is also my duty earnestly to urge that our history be made to furnish more optimistic answers to them, when they are asked a quarter-century hence. I am sure that nothing can help forward a consummation so hoped for by us all, than the carrying out of some plan for the founding of an Institute for Drug-Proving.

Its work will be living work; it will be vitally necessary

work; and it will be our work, by right of sacred inheritance. Not a recruit under our homœopathic banner but can do his share toward that work. In the governing body of that Institute we must enlist representatives of every specialty. Every specialty, through its representative, must glean from every drug proved those symptoms which suggest its usefulness in that specialty. These symptoms it must be his special province to verify by test and counter-test. Thus he will be greatly serving homœopathy, and adding greatly to the power of homœopathy to be of service to him and to his patients. Even we general practitioners, though painfully conscious, sometimes, of standing as the future dodos of the medical profession, soon to be of interest only to the student of extinct species, will have our share of that great work, by chronicling the triumphant emergence from the sharper tests of this new scientific day of our own old standbys, in the few unfashionable, homely, and as yet unspecialized ills that remain for our tendance. We shall point out to a world that still eats green apples how colocynt is equal to autumnal emergencies, and how aconite still holds its own in measles, a formidable rival to the common or domestic saffron tea. Nor is it alone the ministrants to differing varieties of disease who must claim equal representation in the new Institute of Drug-Proving. This must embrace, as well, representatives of every differing shade of homœopathic medical opinion, who may, in the large toleration born of these new days, work together in amity. The gruesome spectre of the "potency question" as a war issue may surely now, at last, be relegated to our family tomb. The advocates of the highest potencies can hardly be unwilling to submit their claims to some other tribunal than that of the uncontrolled clinical test, since by that tribunal to-day the most numerous honorary diplomas are granted to quack proprietary preparations. The scoffers of aforetime at the powers of the infinitesimal are remaining, if not to pray, at least to ponder in chastened soberness lessons in the power of the infinitesimal, as manifested in the germ theory and the X-ray; and to read thoughtfully that recent report of the United States Department of Agriculture, which states that the application of a solution containing one part of copper sulphate to seven hundred million parts of water is sufficient to affect the growth of certain seedlings when ap-

plied to their roots; and that experiments with infinitesimal dilutions of this same substance (one to fifty million) promise to give a treatment of water-supplies that shall make the workers on the Panama Canal practically immune from the diseases that, it was proclaimed only a few brief months ago, could not fail to cost that enterprise a million lives before it saw completion. With the recognition of the necessity of scientific control-tests on the one side, and the recognition on the other side of the unwisdom of crying "impossible" to anything, because we cannot at once determine its method of working, the two hitherto opposed factions of our therapeutic faith should find it easy to work together to noble and abiding result, and in a spirit wholly fraternal.

Once more, fellow-children of our great Institute, I bid you welcome to its councils. I welcome you as therapeutic specialists, united in loyalty to a family cause. I welcome you as physicians united by a greater bond and to a wider issue. As specialists, may we grow in expert skill by these our common deliberations; as physicians, may we grow in wider usefulness; as men and women, may we grow in tolerance, and earnestness, and human kindness.

TREATMENT OF SHOCK, COLLAPSE AND GENERAL SEPSIS.

BY J. W. HASSLER, A.M., M.D., PHILADELPHIA, PA.

(Read before the W. B. Van Lennep Clinical Club.)

BEFORE entering into the treatment of shock and collapse, allow me to bring to your notice certain conclusions as to their aetiology. The question as to the exact centre or centres involved in these conditions is still an argued one. Observations have been repeatedly made upon animals, deducing from these experiments certain conclusions. Certain opinions granting only paralysis of the vasomotor centres, others a composite paralysis. It has been my good fortune to be in touch with Dr. J. J. Tuller, one of the neurologists to the Hahnemann College and Hospital of Philadelphia. Dr. Tuller has made certain observations as to cell changes following shock and col-

lapse. These observations were made possible by post-mortem examination of the brain and cord of patients succumbing to shock or collapse. He has kindly written in a concise form, for this paper, his observations, making his comparisons from the simplest form of shock—sleep. The following are his views:

“In the production of normal unconsciousness, such as sleep, the nutrition of the cell elements, generally throughout the central nervous-system, becomes more or less exhausted, and the cells gradually retire into a state of rest for the recuperation of their nutrition. In this state, the cell prolongations, known as dendrones, as well as the cell bodies themselves, pass into a state of retraction, these separating themselves and checking temporarily the active functions of the central nervous-system. This process is generally participated in by all the cells of the central system, except those governing the directly vital organs. During this state it is quite frequent that the nucleus of the cell wanders from its normal position in the centre of the cell to the outer margin, as though in search of nutrition or oxygen, to again return to the centre of the cell, when nutrition has been re-established. This, however, is the normal evolution of exhaustion and nutrition of the cell. When this condition is suddenly precipitated by an agency, known as shock, there is a sudden and distinct alteration in the chemical constituents of the cell protoplasm, which extends generally to the cell structures over the nervous-system, and, if profound enough, to the cells comprising the centres controlling the vital organs, death soon follows. According to the degree of shock, there takes place, in degree, from a partial to a complete chromatolysis of the cytoplasm. If this change is but partial, the normal chemical relationship is soon re-established, between the contents of the cells and the blood, or nutrient fluid, and recovery follows. If it is more profound and yet not sufficiently profound to cause death, there is apt to occur a derangement of either the intellectual, motor or sensory functions of the brain, or perhaps all three, in which a permanent change in the protoplasm of the cell takes place, resulting in pigmentation, vacuolization, and, finally, complete destruction of the cytoplasm. If the normal nutrition is re-established, the cell resumes its normal functions, the dendrones again reach forth in their normal paths,

collecting, in the performance of their functions, the normal nerve impulses from the axones."

His observations show to us that the circulatory manifestations in shock and collapse are but secondary. The circulatory changes—and in this all observers agree—are shown by a fall in blood-pressure to a greater or less degree. Therefore, in the treatment of these conditions, by reversion, we increase blood-pressure, thereby nourishing the cells, giving to them the blood and oxygen they seek for, and blood tension is sustained. The best means of restoring the nourishment is now of vital question. It must of necessity vary as to the degree and cause of the fall of blood-pressure. To digress for a moment, in the treatment, I believe, we lose sight of the fact that the heart and bloodvessels are possessed of separate nerve-centres, therefore are indirectly independent of one another. The heart, being a reservoir and pump, collects the blood, and then pumps it into the vessels; in other words, gives the first impulse; thereafter the bloodvessels, through their own nerve mechanism, force the blood to distal and proximal points. In the treatment, then, we are apt to pay too much attention to stimulating the heart at the expense of the bloodvessels, which, in my opinion, are of paramount importance.

That the heart and bloodvessels are sustained independently of one another can be demonstrated by destroying or cocainizing the accelerators and inhibitors of the heart, after which blood-pressure can be raised and maintained. The following experiment I proved to my own satisfaction. Following the ligation of the vessels in the neck of a dog, he was decapitated, after which the circulation was sustained at almost normal pressure for ten hours. This was accomplished by an intravenous infusion of a 1 to 30,000 solution of adrenalin, actually showing the heart is not fully dependent upon its own centres. Other observers have sustained the circulation for five days. To me, ten hours were sufficient to prove the efficacy of vessel stimulation.

Shock being spoken of as extrinsic—usually the result of trauma, causes an exhaustion of nerve-centres; collapse being intrinsic—usually from severe fright or loss of fluid, hæmorrhage, causes the centres to be suspended in function. Therefore, in the treatment we should of necessity know which one

we have to deal with. Collapse, though frequently more severe than shock, is more amenable to treatment.

The change in blood-pressure during an operation should be observed by the anæsthetist; making his observations from a sphygmometer—digital examinations being faulty—thereby keeping the operator in constant touch with his case. A fall in blood-pressure is ever present to a degree in all operations, therefore those means which will give us the best results should be ascertained. We must approach the question in the treatment of shock in such a manner as to realize that only about 2 per cent. of these cases need radical treatment.

As an anæsthetist, it has been my fortune to have been called upon to administer a stimulant but seven times in the last four hundred and seventy-six cases; having observed that most of the cases were benefited by either heat, rest, posture or a combination of all three. At times a certain amount of peripheral pressure was necessary to aid in forcing the blood towards the brain. Rest is imperative in securing the best results. If your cases manifest the excited type of shock, morphia $\frac{1}{4}$ gr. and atropia $\frac{1}{150}$ gr. I find acts very well, both as a stimulant and a sedative. Posture, by elevating the foot of the bed at times, is all that is necessary to force the blood towards the head; if not, then by milking the extremities, followed by bandaging the same, will aid. Heat is as imperative in the treatment of these cases as rest. The patient cannot be harmed by a very free application of dry heat to the entire surface of the body. Only after the above means have been given a fair trial, unless in very urgent cases, should we resort to drug-stimulation.

It is a question of dispute which drugs will give us our best results. Strychnia for years has been the prevailing remedy for the relief of shock and collapse. I believe it has stood the test generally, though now to be superseded by a drug, to be mentioned later, I believe far more consistent and permanent in action. Strychnia, when called for, we found inert in the $\frac{1}{80}$ of a grain. When given in the $\frac{1}{30}$ of a grain, or even lower—lower preferably—we noted pleasing results. The efficacy of strychnia lies in the fact of using the lower strengths and not too frequently repeated, the latter fact often being the cause of no result, and frequently, I believe, the cause of a deeper degree of shock or even death. Failures have resulted in some

cases, even in these lower strengths. If collapse is the presenting evil, strychnia low, following saline infusion, has indeed given remarkable results. The fault in the use of strychnia is that most physicians are afraid of the lower strengths. Again, to repeat, if you do use it, give it low, but do not repeat too soon. Alcohol in any form, I find, causes a deeper degree of exhaustion, therefore should never be called for.

Atropia, acting as it will upon the respiratory and heart centres, will be found useful when given in combination with a drug acting upon the bloodvessels nerve mechanism. Camphor, a beautiful physiological picture of shock symptoms, has so utterly failed in every form, tincture, potency or oil, that I never use it. Digitalis, by its action upon the heart through the vagi and cardiac ganglia, also upon the heart muscles, is useful in conjunction with a vaso-stimulant. Digitalis imparts more vigor to the blood-stream from the excessive heart impulse, and as a combination to a vaso-stimulant, I believe is preferable to atropia, the latter being more efficacious when a respiratory stimulant is needed. Suprarenal capsule and the active principal, adrenalin, have proven able to increase and maintain blood-pressure more consistently than any drug given for the same purpose. We find these drugs to be quick in action, but not retained for any length of time, therefore they can be repeated at short intervals, depending upon the degree of shock. The dosage must be observed with care, for it is said an excessive dose produces inhibitory action on the heart. Atropia will counteract the action of adrenalin or suprarenal capsule. The dose subcutaneously, I find, should be from 2 to 10 drops of the 1 to 1000 solution of adrenalin, the amount depending upon the degree of shock or collapse. Intravenously a solution of 1 to 10,000 to 1 to 50,000 can be given. I base the percentage upon a short or long time in infusing, using the latter to a long infusion and the former to a short infusion. After the blood-pressure has been raised to the proper tension, suprarenal capsule in 5- to 10-grain doses every four to six hours will maintain the tension required. Adrenalin has controlled internal hæmorrhage from the different viscera. Therefore I believe the fear of infusing, before tying the bleeding vessels in internal traumas, is partly obviated by the use of adrenalin in the saline solution. The profession possess in these two

drugs potent and consistent agents in restoring blood-pressure in shock and collapse, therefore should be administered when called for in preference to any of the so-called heart or vasomotor stimulants. At times drug-stimulation alone will fail of increasing blood-pressure. No better means do we possess in aiding a drug, and frequently alone, than by a saline solution infusion, the life-saving agent. Especially called for in collapse, at the same time often beneficial in shock. If slow infusion is desired, hypodermoclysis is possibly the better method. If a rapid infusion, and I believe the better way, the intravenous route is used. Intravenous infusion can be given slowly or rapidly, therefore, I believe under these conditions is the proper method to use, the results are more apparent. Salt or sodium chloride is of itself a very beneficial agent, being one of the most useful ingredients in the body, its excretion and retention has possibly more to do with disturbances of osmotic pressure in tissues than any other ingredient. In febrile diseases we know that the alkaline salts of the blood and cells are used up, and the moment the blood becomes impoverished in sodium chloride it is prejudicial to certain functions. The efficacy of sodium chloride at once becomes apparent in these conditions. Sodium chloride will cause the increase of œdema if present in any organ, therefore contraindicated as infusion if such conditions prevail. Saline solution, after infusion, is not long retained in the vessels, leaving them almost as fast as it is introduced through the normal channels of absorption. If not closely watched this may lead to distressing symptoms, accumulating, as it may, in the walls of the stomach, in its lumen, in the intestines, abdominal and thoracic cavities, respiratory tract and tissues generally, such an accumulation in the splanchnic area will cause embarrassment and even failure of respiration.

Cases at times manifest an extreme degree of shock without warning and we must act quickly. The heart apparently has stopped pulsating, and in certain cases reported resuscitated, the heart had ceased pulsating. Massage of the heart is the method to restore pulsations. This can be accomplished either by rhythmical pressure upon the chest-wall, directly over the heart, or if necessity demands, the heart must be gotten at directly by incising along the rib border, dissecting away the

pleura until you reach the pericardial sac, then either the sac and heart are grasped or the sac entered and heart directly grasped, then by a rhythmical massage of the heart pulsations can and have been started and maintained. The efficacy of injecting adrenalin into the heart muscle to induce pulsations, by its contractile power, has been unsuccessfully attempted. The writer attempted this means after the heart had ceased for at least five minutes; a few drops of adrenalin induced about twenty pulsations.

Artificial respiration should not be lost sight of in assisting to restore our cases. The physician who can perform artificial respiration correctly in all its forms is a rarity indeed, perhaps a broad statement, and a fact to be deplored; I have witnessed so many blundering attempts that they cause the above assertion. A few words in regard to the treatment of systemic sepsis. Having had success with a certain drug, I feel I am compelled to give it to the association. After trying infusion of saline solution and blood-letting with apologetic results—with two or three successes out of a few hundred cases with the antistreptococcic serum and fair success with formalin solution,—I was greatly pleased with the results procured through the use of colargol. Commencing on the first day with 2 drachms of a 2-per-cent. solution, increasing daily until a $\frac{1}{2}$ ounce of a 5-per-cent. solution was given. The method of administration is by direct injection into a vein. In every case the temperature was reduced after the administration, and in all but one case the temperature remained normal after five days. The one case was slightly benefited at each injection, the source of infection being persistent, the solution failed in doing the good it should.

ANACARDIUM ORIENTALE IN THE VOMITING OF PREGNANCY.—A young woman, pregnant one month with her third child, suffered greatly with nausea and vomiting. She had taken, without benefit, a number of the more usual remedies. The one striking fact in her case seemed to be the great relief experienced after eating. In fact, she felt inclined to eat very frequently on account of the temporary relief afforded. Proceeding according to the homœopathic method, and forgetting, for the moment, the exciting cause of her reflex symptoms, we gave anacardium 3x every four hours. A cure followed immediately. Nausea and vomiting had been very persistent during previous pregnancies, without treatment.

THE MANAGEMENT OF FAILING AND BROKEN CARDIAC COMPENSATION.

BY A. L. BLACKWOOD, M.D., CHICAGO, ILL.

(Read before the American Institute of Homœopathy.)

By the term cardiac compensation, I understand that condition in which the dynamic power of the heart is sufficient to maintain the circulation in such a state that the patient is not aware of anything abnormal. The heart responds to all ordinary demands placed upon it without producing undue shortness of breath or respiratory distress; and as a result the patient is able to perform athletic feats and laborious occupations with no more distress than is common to any individual who attempts such tasks.

By the term failing compensation, I understand a condition in which the patient is still able to go around and perform certain laborious duties or exercise, but with a feeling of discomfort. This is in proportion to the imperfectness of the compensation, and varies within a wide limit.

When the compensation is lost, the patient is unable to perform physical exercise or exertion with any degree of comfort. The circulation is greatly disturbed and venous stasis is present. There is more or less œdema and symptoms of a subjective character, the severity of which is in proportion to the loss of compensation. If the tricuspid valve is at fault, the size of the liver is a guide to the state of the compensation. However, failing compensation of tricuspid disease is so constantly a secondary step to diseases of the other valves that its occurrence becomes a part of the valvular lesion it complicates.

It is evident that the treatment of these cases varies according to the degree and stability of compensation present. It should be ascertained if the compensation has ever been perfect since the acute process that caused the valvular defect, and, if it has, what were the causes that destroyed it. These points should be carefully investigated, as in the first class of cases there are probably some serious changes or conditions in the patient's environment or circumstances of life that will interfere with any permanent improvement. While in the second class

the cause of the break must be carefully investigated, that an intelligent course may be pursued with reference to its establishment.

It requires a most thorough study of all the factors in the case before one can state with any degree of certainty just what to expect as a result of treatment. If there are indications of long standing myocardiac or valvular degenerations that have arrived at such a state that their effects are pronounced, or if the changes are such that their repair and compensation are impossible, the chances are unfavorable, and too much should not be expected nor promised. If, on the contrary, the lesion is of recent date, if degeneration and chronic infection are absent, if the subject is young and the tissue changes are in the ascendancy, the chances are better.

The compensation having once failed or broken and having been again established, great care must be exercised to prevent such a failure in the future.

In managing such a case the physician must have a definite knowledge of the pathology, a well formed plan for its correction or modification; and having decided upon the plan, all instructions to this end should be given carefully and executed faithfully. As it is only by the definite instructions of the physician and their faithful execution that favorable results are to be anticipated.

There is no detail in the daily routine of the patient that is too trivial to demand the physician's attention, for there is something in the surroundings of nearly every one that will interfere with recovery if it is not corrected.

Rest.—This is possibly the greatest agent in the management of these cases. By this term I mean rest in bed. It is often hard to impress upon patients the idea that this is what is needed, as so frequently they persist in some form of exercise, hoping thereby to gain strength. A few moments devoted to the common-sense side of the procedure is usually sufficient to convince the most skeptical of the favorable results to be obtained. The mechanical effect of rest is soon apparent. The weakened and dilated heart is overtaxed, and as a result is discharging and receiving more blood than it is able to conveniently. While at rest, muscular activities cease, the respirations are less rapid, and shallower, the blood-pressure is lower, and

as a result there is less blood brought to the right auricle. The cardiac contractions are less frequent, and there is a diminished tendency to dilatation, and an opportunity is afforded for compensation to take place. The quality of the pulse soon improves. The indications of venous stasis are less, while the quantity of the urine is increased. The various viscera functionate in a more normal manner, and the nutrition shows improvement. All of these are conducive to an improved coronary circulation. The longer the pause between the cardiac systole and diastole, the greater the opportunity for the filling of the coronary arteries. While the relieving of the auricles of venous stasis affords a more rapid emptying of the coronary veins into the cavity of the right auricle, as a result there is an improvement of the cardiac metabolism. It matters but little what form of valvular lesion is present, rest is indicated at some time in its history. The more serious the lesion, the greater the demand for absolute rest, as one indiscretion may be sufficient to destroy the accumulative influence of weeks of rest.

Each case should be managed according to its particular needs. While one may be afforded a certain degree of liberty, another may demand the most rigid type of management and confinement to the bed for several months. With some a prolonged confinement to the bed produces such a spirit of discontent and restlessness that much of the benefit hoped for is not obtained.

The failure in the management of many of these cases is in placing too much confidence in the medical treatment, and not sufficient in the adjuvant.

Exercise.—Following a period of rest there comes a time when a limited amount of exercise is demanded. This is when the venous stasis has to a great extent been removed, and the heart has regained its strength, as is indicated by a greater regularity and slowing of the heart's action and an increase in the arterial tension.

At the first attempt of the patient to exercise, the physician should be present that he may observe for himself its effects upon the heart and circulation. This should be a slight walk about the room, stopping short of fatigue, breathlessness, or palpitation of the heart. Very gradually should these walks be extended upon the level till such time as the heart has re-

gained sufficient strength, that a slight elevation may be attempted. Care should be exercised when attempting to climb stairs or hills.

The increase of the activity should be gradual, thoroughly mastering one task before another is undertaken. The task should be undertaken with deliberation, avoiding all talking during the exercise, and stop to rest when the breathing grows short or the heart action becomes rapid and labored. This class of exercise is of more service when the cardiac weakness is depended more upon a myocardial rather than a valvular defect. When the valves are diseased and a stenosis especially is present, hill climbing is often dangerous, as the patient is apt to overtax the heart. Close attention must be given to details to avoid injurious effects rather than benefit. This form of exercise has been closely investigated and popularized by Oertel.

A form of exercise that has given excellent results, and is adopted to the majority of these cases of failing or broken compensation, is that known as the "resistance exercise," and forms a part of the celebrated Naudheim treatment. These consist of certain voluntary movements on the part of the patient, of extension, flexion and rotation of the extremities, and of the body, which are slightly resisted by the attendant. While this may appear a simple procedure on the part of the attendant, it requires a degree of experience in order that the resistance may be applied without causing any constriction of the part, or occasion any embarrassment of the respirations or circulation as a result of too great resistance. The indications of too great a resistance being employed are, palpitation of the heart, a duskiess or pallor of the countenance, a sighing, yawning respiration, or a drawn appearance about the mouth.

No movement should be made twice in succession. The patient should breathe freely and easily during the exercise and should maintain an easy posture and make all movements slowly. A description of these exercises is to be found in any modern text-book on the diseases of the heart.

Recent observation has led me to give emphasis to abdominal massage in the class of cases under consideration. There is every evidence that alone, or in conjunction with a general massage and the Swedish movements, it acts as a diuretic.

This action is most apparent in cases where there is visceral and subcutaneous œdema. The results are evident in from one to three days when the quantity of urine voided has been increased from two hundred and fifty to three thousand centimeters during twenty-four hours. Not only is diuresis established, but the character of the circulation is improved, and the pulse is more regular. This form of treatment has the advantage of not interfering with any therapeutic agent. It should be employed in a scientific manner by a competent person. While at rest, general massage is of great service.

In connection with the exercise at Naudheim there are employed saline and effervescing baths that are of great assistance. These are now artificially prepared and can be given in any hospital, sanitarium or well-equipped home. Under their influence the pulse becomes slower and more regular. The deep-seated area of cardiac dulness is diminished, the heart regains its strength, the sounds become stronger. The venous congestion is gradually diminished. The kidneys act more freely. The skin loses the purplish or cyanotic hue, and becomes of a more normal color while the patient is conscious of a sense of improvement. There is a general return of the strength, and an ability to exercise with a greater degree of comfort. Whether the favorable action of these baths is dependent upon the increased metabolism and reflex nervous stimulation of the heart, or upon the lessened work of the left ventricle due to the dilatation of the cutaneous capillaries, or a combination of all, it is difficult to say. However, it is evident that each plays its *rôle*.

The baths are not indicated when the compensation is wholly lost, when there is such diseased conditions as aortic aneurysm, in pronounced and general arterio-sclerosis, or where there are extensive mediastinal or pericardial adhesion. Following the bath, if the pulse does not show increased tone, but on the contrary is of a lowered tension, and if there are other unfavorable indications, the bath had better be discontinued.

Diet.—It should be remembered that venous congestion of the abdominal viscera results in a catarrhal state of the mucous membrane of the digestive tract. The secretions of the pancreas and liver are changed both in quality and quantity as is indicated by the gaseous distention of the stomach and intes-

tines, the eructations and other indications of fermentation. The elimination of urea and uric acid is interfered with, while the liver in its crippled condition is unable to destroy the toxins that are developed as a consequence of those changed conditions. As a result many patients complain of pains, aches, muscular stiffness, despondency, insomnia, and various sensations that are readily attributed to defective elimination. In other cases there are digestive disturbances, and the simplest and most easily digested foods disagree.

A suitable diet for many of these cases is a problem that requires much thought and attention. If there is no renal lesion the proteids should have a prominent place in it, as they are demanded in the repair of tissue. They do not ferment and form the amount of gas that the carbohydrates do while their bulk is much smaller. As both the digestive process and the assimilation are slow, it is evident that the meals should not be too close together, but time should be allowed for the stomach to empty itself before the next meal is taken. Speaking generally, about five or six hours should elapse between the meals. If a sensation of hunger and gnawing of the stomach is complained of, a cup of clear broth will be of service in relieving it. A cup of hot water taken one hour before the meal is of benefit, as it clears the stomach and prepares it for more food. The quantity of fluids taken at the meal should be limited to six to ten ounces. The object of this is that the stomach may not be over-distended. If tea and coffee are allowed they should be weak. If they produce any digestive disturbance they should be discontinued. If stimulants are demanded they should be well diluted with water, and given periodically.

Malt beverages are not well borne, as they produce distention of the stomach. If they are required, a small amount should be taken, and this not too cold, as drinks at the extreme of temperatures are not well borne. Soups and meat broths are allowable, providing the kidneys show no degeneration. Purées are usually nutritious and are well borne. The carbohydrates produce an excess of flatulence and readily undergo fermentation. This can be prevented to an extent at least by a thorough cooking. Many of the patent foods upon the market are of a low nutritional standard. Fresh vegetables taken as a class are beneficial. Those that produce an excess of flatulence

must be avoided, as well as those which are not well borne. Meats are rich in proteids, and those that are the easiest digested, should be employed. They should not be fried, but roasted boiled or stewed. Eggs, and some varieties of salted meats, fish and oysters are of service.

Desserts, as a class, are injurious. Ripe fruits in their natural state often serve these cases well. In some cases it will be best to give carbohydrates at one meal and the meats at the next, as in this way much fermentation is avoided.

In some of these cases, while at rest a milk diet will be of great service. It acts as a diuretic and has a favorable action upon the high arterial tension. The milk should be given warm, and repeated in from two to three hours. It may be diluted with one of the alkaline waters. It should not be continued too long, as anæmia will result.

The habits of these patients must be investigated and all excesses corrected. The tobacco and alcohol habits are pernicious and may prove to be the cause of much of the cardiac depression. Sexual excess has its injurious effects and should be controlled. The occupation of the individual and its influence upon the particular case should be studied. If it is such as interferes in any way with the recovery it should be changed. If this is impossible, its injurious effects should be carefully explained.

The clothing should be sufficient at all seasons of the year, and such as will afford protection, thin wool being preferred at all times. There should be no constriction to interfere with the free movement of the chest.

In certain cases, the extreme dyspnœa and cyanosis present requires attention. When they arise as a result of venous stasis, the usual cardiac remedies, together with such management as the case in general demands, is usually sufficient. Should they depend upon an impoverished condition of the blood, the attention must be devoted to the nutrition and the employment of such agents as strychnine and oxygen. In extreme cyanosis blood-letting is of temporary service.

When dropsy appears it is not the result of the heart alone. There is an obstruction to the capillary circulation, with an increased permeability of their walls, together with anæmia. The removal of the dropsy in some cases is an easy task. The em-

ployment of the remedy that is indicated in the case is all that is needed. But when the serum has been poured out extensively, and there is a general obstruction of the capillary flow to such an extent that a general anasarca is present, all the serous cavities being distended, there is much pressure upon the renal arteries. The problem is now one of great moment, as this must be removed before the strength of the heart can be improved. In these cases the bowels, or mechanical means, must be called into activity, to lessen the pressure upon the renal veins. In these cases I lose no time in calling into activity such agents as will produce copious watery discharges. While this is objected to by some on the ground that it is weakening, I have not observed it to be so weakening as that produced by the cardiac embarrassment. The agents that I have relied upon are the sulphate of magnesia, potassium bitartrate, elaterium, and compound jalap powder. Following the use of these remedies when the dropsy is well removed, apart from some about the liver, euonymus, nux vomica, chenopodium or chelidonium majus is then studied.

In those cases where this is not sufficient to remove the dropsy, I employ incision over the malleolus, or use Southey's tubes. When the anasarca is decreasing is the time to employ such remedies as are needed to increase the tone of the heart, the circulation and the general nutrition.

Digitalis is of service when the compensation is failing. The heart's action is feeble, rapid and irregular, the second sound is faint, and dropsy is appearing. The urine is dark and scanty. The finger nails and mucous surfaces are blue. Dyspnœa is present, and there is a sensation of uneasiness and tightness about the heart and chest. From 1 to 5 drops of the tincture will exert a most favorable influence. When anasarca is a prominent symptom, an infusion of the English leaves is employed with favorable results. Apocynum can. should be compared in this class of cases.

It is to be remembered that all digitalis preparations act somewhat slowly, and that digitaline may be of service. It acts as a heart tonic and diuretic, and may be given hypodermatically in emergency or per mouth; otherwise in $\frac{1}{67}$ to $\frac{1}{134}$ gr., repeated every two to four hours, until the failing right heart shows increased tone.

Strychnine, or the arsenate of strychnine, is frequently of service following digitalis.

When the arteries are sclerosed with a high arterial tension, or when there is a degeneration of the myocardium, and kidneys present, strophanthus is of service. *Crætagus oxycanthus* is indicated by much the same group of symptoms. *Adonis vernalis* and its active principal, adonidine, is of service when the anasarca is a prominent feature. The urine is scanty, the urea is low, and asthma is present. *Convallaria* should be remembered when the right side of the heart is most affected. Its action is weak and irregular. Dyspnœa is present and palpitation of the heart.

Nitro-glycerin is of service when the arterial tension is high. There is palpitation of the heart, cerebral congestion and irregularities of the circulation. Spartein sulphate is serviceable when the patient is of the nervous hysterical type. There is weakness of the heart and a disturbance of its rhythm. Agaricin should be remembered in the dilatation of the heart that is associated with emphysema of the lungs; the rhythm is disturbed, there is violent palpitation of the heart with twitching of the muscles, and more or less perspiration; it is especially indicated following chorea.

The iodide of arsenic, arsenate of iron, arsenic, or the Ferr et strych cit, should be studied when the anæmia is a most prominent symptom. When the œdema has been removed, and a chronic bronchial catarrh remains, the iodide of stannum, arsenate of antimony, buchu, copabia and cubebs should be studied.

In some cases a remedy is required to assist in relieving the gastric disturbances; here the sub-gallate of bismuth, *hydrastis canadensis*, *mercurius dulcis*, *nux vomica*, and creasote are of service.

The renal symptoms that are such a prominent feature in the termination of many of these cases are to be met by the attention to the diet, the action of the skin, bowels, and those that have been already mentioned.

A DIFFERENTIAL DIAGNOSIS OF THE HOMŒOPATHIC CARDIAC ACTION OF DIGITALIS, CACTUS, SPIGELIA, AND NAJA TRIPUDIANS.

BY A. C. COWPERTHWAIT, M.D., CHICAGO.

(Read before the American Institute of Homœopathy.)

THERE is little in common in the action of these drugs, all of them cardiac remedies of great value, yet each covering a distinct sphere of its own, and differing in all respects from the others.

Unfortunately, the too common practice of so-called physiological prescribing finds its maximum in the treatment of cardiac disease. The diagnosis once established the remedy to be prescribed is too often a foregone conclusion, regardless of symptomatic indications. In almost every instance a person suffering from any form of cardiac disease, and in any stage of that disease, will receive from an old school physician digitalis in physiological doses. To a less extent, but in some degree this abuse of a valuable drug is maintained by many homœopathic physicians. Others are so prejudiced against the drug that they never employ it. They have wisely noted the baneful results from its indiscriminate use and, failing to appreciate its homœopathic application, deprive themselves of its quite often valuable aid. Yet often those very physicians are equally as unscientific in the indiscriminate use of other drugs, even though these be less harmful in their effects. I know of one physician in particular who, with a diagnosis of cardiac disease, whether it be pericarditis, endocarditis, or valvular disease, whether the heart be hypertrophied or dilated, whether its action be overstrong or weak, regardless of symptomatic indications, invariably prescribes cactus. Such a habit is but little less reprehensible than the habit of indiscriminately prescribing digitalis, though it may be less harmful. The indications for spigelia are so pronounced that it is less often used indiscriminately, yet there are those who never think of prescribing any other remedy in an endocarditis.

The essential element in digitalis is cardiac weakness. Its

primary effects inducing a slight stimulation, causing a more vigorous heart action, are very transient, and even during this time the condition is one rather of irritability than genuine stimulation. There is no genuine increase of heart power in the action of digitalis from beginning to end. Soon its seemingly stimulating effects are followed by the evidences of a weak heart. If the drug be continued in large doses, so that the stimulation or irritability is kept at a forced maximum, the heart muscles may become tetanized and death result from a tetanic spasm, but more often the action stops short of this, and the irritability gives place to weakness and relaxation with dilatation. Here then is presented the true homœopathic action of the drug, with symptoms easily recognized and without which the drug is inapplicable in any dosage. To prescribe digitalis in any cardiac disease or reflex cardiac trouble, where there is already for any reason overstimulation and excessive heart action, though it may give temporary relief as a so-called "cardiac sedative," is nevertheless reprehensible, as the ultimate results are invariably disastrous—weakness of the heart muscles, dilatation, etc.—hastening a fatal termination. I have seen many cases of reflex irritation of the heart from indigestion or from ovarian disease where organic changes with heart weakness had been or was in the process of being induced by the free use of digitalis. The most important symptoms indicating digitalis is a rapid, weak, irregular, fluttering or intermittent pulse, aggravated by any motion, especially on rising from a bed or a chair, even to the extent of cyanosis or syncope. There is also great anxiety, oppression and dyspnœa, and often a sudden sensation as if the heart stood still.

It is thus plainly evident that digitalis is not indicated in the early stages of cardiac disease, but only after failing compensation is manifest. These with these symptoms present it is the homœopathic remedy and whether heat administered in potencies or in material doses is simply a question of individual experience and good judgment.

Cactus presents a different picture from that of digitalis. While if long continued it may produce in some instances dilatation and cardiac weakness, yet this is not a constant result as in digitalis, and is an occasional rather than an essential feature of its action. Cactus causes great irritation of the cardiac

nerves resulting in irritability, hyperæsthesia, neuralgia, spasm and palpitation, and these conditions are not transient as in digitalis, but persistent and characteristic, even to the point of inducing hypertrophy and inflammation. This action of cactus places it in the front rank as a remedy in any form of organic or functional cardiac disease if its symptomatic indications are present. Its greatest usefulness in organic disease is contrary to digitalis, in the earlier stages, before failing compensation has become manifest.

In nervous affections of the heart, neuralgia, angina pectoris, cardiac asthma, etc. In acute carditis, pericarditis, endocarditis, cardiac rheumatism, etc. In functional cardiac troubles, especially when resulting from indigestion. The symptoms of an iron band constricting the heart and preventing its normal movement, or, as if the heart were grasped by an iron hand which alternately grasped and relaxed, is the great characteristic symptom of the drug, and when present indicates cactus, regardless of the pathology. There are, however, many other cardiac symptoms, such as very acute pains and stitches in the heart; pain in the apex shooting down the left arm to the ends of the fingers; palpitation, irregular beating, from walking or the slightest excitement, and at night when lying on the left side; dyspnœa; cold sweats, etc. There may be endocardial murmurs, with an excessive impulse and increased area of precordial dulness. The action of the heart is irregular, at times frequent, at other times slow, but rarely weak and thready in character. Thus it may be seen that cactus has a much wider range of action than digitalis, and is exactly suitable to a class of cases where digitalis is not useful, but where it is often wrongfully prescribed and with disastrous results.

Spigelia has no resemblance whatever to digitalis, but in some respects is similar to cactus. We get the same nervous irritation of the heart, but which becomes more pronounced than in cactus, resulting in more violent action and in more extreme pain. Spigelia is especially useful in painful affections of the heart, both neuralgic and inflammatory, though in the latter its action is undoubtedly due to its influence over the nerves, rather than to any power it possesses to either produce or cure inflammations. Just the same it is, outside of aconite, our most valuable remedy in acute cardiac inflammations. These

are often rheumatic in their character, and doubtless spigelia has a direct action upon the fibrous tissues of the heart. No other remedy gives such a violent and tumultuous action of the heart, its beats being both audible and visible, and is always accompanied by great dyspnœa, and aggravated by motion, especially on rising from a chair or bed. The pains are stitching or sticking in character and are often synchronous with the heart-beats, a characteristic we get nowhere else. They radiate from the heart to the back and chest, but more especially to the arm, reminding us of aconite and rhus. There is a trembling sensation in the heart and a purring feeling over the heart. All these symptoms are characteristic of Spigelia, and while the drug is called for in the same class of cases as cactus, there need never be any question as to a differentiation between the two drugs, and certainly none between spigelia and digitalis.

Naja presents some resemblance to digitalis, particularly in giving a rapid, weak, irregular pulse, and it has often proved of value in threatened heart failure, but in general its symptoms are more like those of spigelia. It is most useful in painful affections of the heart with more or less fluttering and a tremulous feeling, and violent and audible pulsations. In this respect it is most similar to spigelia. However, naja is usually called for in more advanced cases of inflammation or valvular disease, spigelia being most useful in the earlier stages. A characteristic of naja not found elsewhere is a sympathetic, dry, teasing cough, associated with rheumatic carditis and valvular disease. It has proved of value in many cases of angina pectoris with great loss of breath and threatening heart failure. Hering recommends naja "for the restoration of a heart damaged by acute inflammation, and for assuaging the sufferings of chronic hypertrophy and valvular disease." It has the advantage over digitalis in advanced cases that when it acts its effects are more permanent and apparently curative in their character, but it does not often give the distinct and immediate tonic effect to a rapidly failing heart in valvular disease as is so often noticed in the use of digitalis. It has often relieved and cured a reflex palpitation and cardiac pain associated with ovarian neuralgia, and the same has occurred in chronic nervous palpitation where no organic disease was present.

PUERPERAL ECLAMPSIA—ITS ÆTIOLOGY AND TREATMENT.

BY HUDSON D. BISHOP, M.D., CLEVELAND.

(Read at the Obstetrical Society American Institute of Homœopathy, 1904.)

THE time will probably come when puerperal eclampsia will no longer be called the "disease of theories," as it was so aptly designated by Zweifel, but that time is not yet, as is shown by the endless array of methods of treatment, which are constantly being brought forth.

The belief that renal disease was its chief, if not its only, cause, which was first pointed out by Frierichs in 1851, had an almost general acceptance for many years, yet it has been as generally abandoned since conclusive data has been available, showing that eclampsia occurred without albuminuria and that chronic cases of renal disease often existed in pregnant women, without the occurrence of eclampsia, or, if it did occur, it was only in exceptional cases.

Many other theories of the cause of the disease have been advanced: hepatic disease (Klebs); brain anæmia and œdema (Traube, Rosenstein, Munk); toxæmia, arising from the genital tract, particularly the interior of the uterus (Müller); bacterial invasion (Délore, Rodet); auto-intoxication from maternal and foetal metabolism (Chamberlent, Tarnier, Fehling, Dienst, Schmorl and Knapp).

It is certain that all of these observers have based their conclusions upon careful clinical and experimental data, and as such they are evidence of advance in the knowledge of the complex nature of the disease; yet the fact remains that up to the present time no conclusive evidence has been adduced in support of any one theory. The most tenable conclusion to be derived from all investigations is that puerperal eclampsia is due to some disturbance of metabolism during pregnancy, which produces an auto-intoxication of some sort, this auto-intoxication being caused either by defective elimination of the products of metabolism or by a failure to properly transform or destroy such products.

In connection with the probable cause of this auto-intoxication, I wish to speak somewhat in detail of the idea advanced by Nicholson (*Scottish Medical and Surgical Journal*, June, 1901), and urged by others since that time. Nicholson suggested a possible causative relationship between puerperal eclampsia and an inadequacy of function of the thyroid and parathyroid glands. He based his conclusions upon the observations made by Lange (*Zeits. f. Geb. u. Gynäk.*, Band 40, Heft 1), that the thyroid is frequently small in eclamptic cases.

Lange examined the condition of the thyroid in 133 women during the last twelve weeks of pregnancy. In 108 there existed the normal enlargement incident to pregnancy; in three cases its existence was doubtful and in 22 it was absent. Of the 22 cases in which the enlargement was manifestly absent, 20 showed evidences of the toxæmia of pregnancy, 16 of the 20 having albumin and casts in the urine. In the 108 cases, which had normal thyroid enlargement, only two had an albuminuria, and both of these presented a history of nephritis existing before pregnancy.

These observations certainly point to some positive relationship existing between the thyroid secretion and the disturbances of metabolism which are found in eclampsia. Sajous (*The Internal Secretions and the Principles of Medicine*, vol. i., 1903), by a most remarkable line of reasoning, which is based upon physiological and clinical observations, has formulated a principle regarding the function of the thyroid, which the above data of Lange confirm. If Sajous's line of reasoning is correct, it would seem that he has explained the condition noted by Lange and has established a basis upon which the treatment of puerperal eclampsia and, in fact, all intoxications can be systematically studied.

Sajous's line of reasoning can be summed up in the following conclusions:

The thyroid gland, the anterior pituitary body and the adrenals are functionally interdependent and constitute a system, which has for its purpose, to sustain physiological oxidation and the metabolic activity of the tissues.

The physiological function of the internal secretion of the adrenals is loosely to combine with the atmospheric oxygen in the lungs, and to endow the blood plasma with its oxidizing

properties. To this oxidizing compound, thus formed, Sajous has given the name "adrenoxin."

The anterior pituitary body governs the functional activity of the adrenals, and is directly connected with them through the cervico-thoracic ganglia, the splanchnic nerves and the semi-lunar ganglia of the sympathetic nervous-system.

The physiological function of the thyroid secretion is to sustain the functional activity of the anterior pituitary body. When the function of the thyroid is inhibited, the anterior pituitary body and the adrenals become correspondingly inefficient in their function, and all of the oxidation powers of the organism are reduced in proportion.

The above relationship between the anterior pituitary body, the thyroid and the adrenals has been proven correct by animal experiments. Stimulation of the pituitary body produces all of the physiological effects secured by the administration of adrenal extract. Removal of the pituitary body produces death, preceded by symptoms resembling those of thyroidec-tomy.

In diseases affecting metabolism, such as puerperal eclampsia, the pituitary body shows marked changes. L. l'Comte ("Contribution à l'Étude de l'Hypophyse Humaine, etc.," *Thèse de Doctorat*, Lausanne, 1893) examined the pituitary body in a number of women who had died during pregnancy, and found not only that this organ was hypertrophied, but that the anterior lobe was alone the seat of the hypertrophy. P. E. Langlois and P. Mulon (*Annales de Gynec. et d'Obstet.*, January, 1904) state that in the histological examination of the pituitary body in two eclamptic women, who died during eclamptic seizures, they found marked evidences of hyperactivity of this organ.

The normal enlargement of the thyroid during pregnancy corroborates this conception of the function of the adrenal system. This enlargement is not a hyperæmia, but is a distinct hyperplasia which is characteristic of the normal physiological condition of pregnancy. If the assumed relationship between the thyroid secretion and the anterior pituitary body is correct, this hyperplasia is simply a means of increasing the thyroid secretion in order that it may sufficiently stimulate the centre of the oxidation processes of the body. Lange's clinical observations (*loc. cit.*) sustain this conclusion, in that he found that

where there was thyroid enlargement during pregnancy, the administration of thyroid extract reduced the size of the gland. This shows that during the time of thyroid medication less thyroid secretion was needed by the organism and, therefore, the thyroid hyperplasia diminished.

There is no doubt but that marked enlargement of the thyroid is comparatively rare during pregnancy and the proportion noted by Lange is larger than is usually found, yet I believe that an unrecognized enlargement is present in many cases. Since the publication of Nicholson's paper I have noted thyroid enlargement of a greater or less degree in at least two-thirds of the cases I have examined.

It seems to me that this conception of the functions of the adrenals, and their dependence upon the thyroid and anterior pituitary body explains the clinical facts noted in puerperal eclampsia. During pregnancy there is an increase of toxic agents circulating in the blood stream, owing to the extra metabolism of the mother and the fœtus. Any condition which interferes with the elimination of these toxic products predisposes to their producing the characteristic symptoms of poisoning, *i.e.*, the lesions of the viscera and the nervous phenomena of puerperal eclampsia. Such predisposing conditions are pressure upon the ureters and kidneys, the kidney of pregnancy, nephritis and reflexly induced renal anæmia, constipation, nervous and psychic excitability and irritability. These conditions do not produce toxic products of metabolism, they only favor their non-elimination. More important than non-elimination is the failure of the physiological function which under ordinary circumstances meets and conquers these toxic agents. We must admit that toxic agents are present in every case of pregnancy, the only difference being a variation of the amount. According to the views held by Sajous, failure to oxidize them into inert bodies is due to a partial or complete inactivity of the adrenal system. The adrenal system is primarily at fault, or it is overtaxed by the great amount of work it has to do.

"Adequate cellular metabolism," says Sajous, "means life" and proper functional activity of the thyroid, under normal conditions of metabolism, or stimulation of its activity in cases of increased metabolism, is necessary to such perfect cellular oxidation. All clinical and experimental data regarding the

thyroid bear out this principle. The effect of thyroid extractions upon metabolism is that of oxidation, and when administered they "make the tissues, as it were, more inflammable, so that they burn away more rapidly." (Hutchinson, *British Medical Journal*, July 16, 1896.)

The thyroid theory, *per se*, as an explanation of puerperal eclampsia, has been opposed by many. Cases of myxœdematous women have been reported who have borne children and who did not have eclampsia, but, on the contrary, have improved in their general condition, the improvement, no doubt, being due to the action of the fœtal thyroid. The thyroid has been removed from bitches while pregnant without producing eclampsia. While these arguments might avail against the thyroid theory alone, they do not hold as regards the so-called adrenal theory. According to this, the fact that thyroidectomized animals did not develop eclampsia simply shows that the adrenals, alone, were adequate to meet the extra call upon their function.

Treatment.—In the light of the foregoing regarding ætiology, the most important part of the treatment of puerperal eclampsia is its prophylaxis. This prophylaxis should consist of a prevention of the formation of toxic waste products of metabolism. This, alone, should be the basis of the treatment of toxæmia of pregnancy, as well as puerperal eclampsia.

The detection of the early signs of toxæmia, therefore, becomes the most important point in the management of cases, and in it lies the secret of the prevention of the more marked lesions of eclampsia.

At the present time we have no knowledge as to the exact identity of the toxic waste products which accumulate in the blood stream as a result of fœtal and maternal metabolism; neither have we positive means of determining their presence or the extent of their toxic action, by subjective and objective symptoms or methods of clinical diagnosis. "Animal protoplasm," says Howell (*American Text-Book of Physiology*, 1900, p. 20), "is pre-eminently catabolic, and the evidence of its catabolism is found in its waste products, CO_2 , H_2O and urea." Urea being the end product of nitrogenous metabolism, any lessening in the amount of its excretion, is an index either of a failure of its elimination or of the oxidation processes which

produce it; yet we cannot assume that urea plays the chief rôle in the toxæmia of pregnancy, because of the multiplicity of substances of indefinitely known identity which are retained in the blood at the same time with urea (Herter, *New York Medical Journal*, May 21, 1898).

Clinical experience, however, shows that the chief danger signal in puerperal toxæmia is a constant and progressive lessening in the excretion of urea. It always means an auto-intoxication and is of much more importance than the evidence of renal disease. Whenever subjective symptoms of puerperal toxæmia exist, or there is evidence of a tendency towards it, as shown by a lessening in the normal amount of urea excretion, the rational method of treatment, based upon Sajous's views of the physiology of the oxidation processes of the body, is along two lines.

1. *Hygienic*.—This includes restriction of the diet, particularly the nitrogenous foods; increase of the oxidizing powers of the body by attention to the improvement of the circulation and the oxygenation of the blood; increase of elimination by diuresis, diaphoresis and catharsis.

2. *Medical*.—This includes the stimulation of the adrenal function by known adrenal stimulants. Since the publication of Nicholson's paper, I have given thyroid extract, syr. hydriodic acid, potassium iodide or arsenious iodide in every case of pregnancy where there have been evidences of toxæmia, and especially where there has been a lessening in the amount of the excretion of urea. In the latter conditions, the increase in the elimination of urea has been marked in every case. In addition to this medication, the homœopathically indicated remedy has been prescribed for reasons to be referred to later. Upon this basis of treatment I believe that most, if not all, cases of puerperal toxæmia can be saved from the more serious and often fatal conditions incident to eclamptic convulsions.

If the toxæmia has been overlooked and appropriate treatment has not been given, the condition is one in which the blood is surcharged with toxic products. The indications for treatment are renewal of the physiological functions, whose inactivity permitted the formation of the toxic products, prevention, for the time being, of the formation of these products, removal of the cause of the increased maternal and foetal metabolism, and rapid removal of the accumulated toxic products.

1. The renewal of the physiological function whose inactivity permitted the formation of toxic products is accomplished by the re-establishment of the physiological function of the adrenals.

Puerperal eclampsia is due, according to the views previously expressed, to the inactivity and insufficiency of the adrenal system. Its function has failed on account of its inability to cope with the products of maternal and foetal metabolism. The first indication in treatment, then, is to so stimulate the adrenals that they will be raised from the depths to which they have been forced, in order that they may be able to resume their function.

Before considering the remedies to be used for this purpose, I wish to speak of a line of thought which I have been pursuing since the publication of Sajous's views. I believe that a possible explanation of our homœopathic law of cure is found in his investigations regarding the physiological action of the adrenal system.

The physiological action of a drug, upon which our *materia medica* rests, represents the disturbances produced by it upon the healthy body. The cardinal symptoms of the physiological action are, in reality, the manifestations of overactivity or insufficiency of the adrenals, brought about by the efforts of the organism to dispose of the drug. These symptoms are induced by the primary action of the drug upon the centre of the nervous elements that control the adrenal secretion. The opposite effects, so often noted in drug-action, are due to the primary action of stimulation of the anterior pituitary body, by the drug and the secondary action of partial or complete arrest of its function.

Precisely as is the case with drugs, the toxins of disease produce similar conditions of overactivity and insufficiency of the adrenal system, acting directly upon the anterior pituitary body, either stimulating it or, if of sufficient amount, depressing its function. Each toxin acts upon the anterior pituitary body in its characteristic way, producing the characteristic symptoms of disease.

The conclusion seems evident that the manifestations of adrenal disturbance originate from similar causes, whether the cause be a poisonous drug, a pathogenic germ or its toxin. As-

suming that this conclusion is correct, is it not reasonable to assume that, for a symptom of disease which represents over-activity or depression of a function, a remedy should be chosen which produces a similar symptom?

It seems to me that if the above explanation of the physiology of the adrenal system is correct, the law of similia offers a means of close differentiation of remedies in choosing the adrenal stimulant required in a given case.

It is beyond the limits of this paper to further discuss this interesting question, but I believe that it is worthy of careful consideration and study by others more capable than I.

In considering the remedies to be used in the treatment of puerperal convulsions, mention is made only of those which are known to have a well defined action upon the adrenal function. It is to be noted that the drugs most often used in the homœopathic treatment of this disease (such as aconite, belladonna, cuprum, gelsemium, iodine and veratrum viride) correspond in their general pathogenesis to the symptoms produced by the removal of the adrenals. Removal of these organs is followed by extreme muscular weakness, marked reduction in blood-pressure, hypothermia, dyspnœa and blood changes (Sajous, *loc. cit.*, p. 39).

(a) *Iodine*.—This halogen is the chief constituent of the thyroid secretion, and as such it is indicated in every condition in which there is evidence of insufficiency of the adrenal function. It is distinctively homœopathic to the conditions manifested in puerperal eclampsia. "Through the organic nervous-system, it acts upon the whole lymphatic and glandular system, especially centreing upon the thyroid. At first it stimulates it to increased action, and this hyperstimulation is soon followed by depression of the most marked character" (Burt, *Physiological Materia Medica*, 1881, p. 481). The internal use of iodine, in the form of thyriodine, has been shown to be curative in puerperal eclampsia by Nicholson (*loc. cit.*). He reports a case which had eclampsia, and who was cured by the administration of thyroid extract, ultimately going on to term and giving birth to a healthy living child.

(b) *Belladonna*.—In toxic doses, this remedy produces symptoms identical with those of adrenal inactivity. Its pathogenesis corresponds to the eclamptic seizures, and it occupies a high

position in the homœopathic treatment of puerperal eclampsia. "No remedy responds to this disorder as completely as belladonna," says Bähr (*The Science of Therapeutics*, p. 166).

(c) *Carbolic Acid*.—The action of carbolic acid in toxic doses corresponds to the symptoms produced by adrenal insufficiency. Its action as an adrenal stimulant, when given in small doses, is shown in the results secured by Baccelli in his treatment of tetanus. He states, "that of forty cases of tetanus treated with carbolic acid, subcutaneously, only one died." (Packard and Willson, *American Journal Medical Sciences*, December, 1902.) The similarity between tetanus and puerperal eclampsia lies in the fact that both diseases are caused by an accumulation of toxins in the blood. This accumulation is dependent upon inhibited oxidation from adrenal insufficiency (Sajous, *loc cit.*, p. 709).

Carbolic acid has never been used, to my knowledge, in the treatment of puerperal eclampsia, yet it should have the same result when given in small doses, as in the Baccelli treatment of tetanus. It not only counteracts the insufficiency of the adrenal system, but it raises the activity beyond the normal.

2. Prevention, for the time being, of the formation of toxic products.

The favorable action produced by the administration of comparatively large doses of morphine during eclamptic seizures cannot be entirely explained by the fact that opium is an adrenal stimulant. One of the most pronounced actions of opium is the inhibition of metabolism, and it seems reasonable to assume that a part, at least, of its favorable action in eclampsia is due to a cutting off, for the time being, of the source of the toxins. I believe that, unless it is contraindicated, morphine should always be given in full doses during the eclamptic convulsions.

3. The removal of the cause of increased maternal and foetal metabolism.

In the majority of cases, at least, the existence of a living child in the uterus is the chief factor in the production of the increased metabolism. Duhressen, Olshausen and Zweifel noted a cessation of the eclamptic convulsions, either immediately, or some time after delivery, in 93.75 per cent., 85 per cent. and 66 per cent. of their cases, respectively (Williams, *Obstetrics*,

1903, p. 707). The belief that labor should be induced immediately upon the advent of eclamptic convulsions is based upon such statistics as these.

In the light of the views previously expressed, regarding the ætiology of puerperal convulsions, operative treatment by the induction of premature labor should not be resorted to until it is found that the treatment based upon these views is futile. A toxæmia, which has reached a point of intensity sufficient to produce convulsions, will usually precipitate labor. If it does not do so, I do not believe that we are warranted in immediately inducing it. Instead, we should resort to every known means of stimulation of the adrenal function, and only after failure in this should we resort to operative treatment.

The most satisfactory method of inducing labor, in my experience, is to dilate the cervix with a small dilator sufficient to admit a small Champetier de Ribes bag. This is filled with sterile salt solution and the internal os dilated until manual dilatation can be carried out by the Harris's method. Instrumental delivery can be made, if necessary, after full dilatation.

Cæsarian section is indicated in severe cases where the life of the mother is in danger and where there is a possibility of preserving the life of the child by its prompt removal from the uterus.

4. Rapid removal of the accumulated toxic products.

(a) *Saline Infusion*.—Whatever the rôle of action of saline infusion, it is clearly demonstrated by animal experiments and clinical tests that by its use toxic products in the blood stream are rendered less toxic or absolutely inert. It seems unnecessary, in the light of the extensive use of saline infusions in all forms of toxæmia, to give clinical data bearing upon this assertion. A most convincing test of the hypothesis is given by the experiments reported by Mathews (*Yale Medical Journal*, June, 1903). "Rabbits were injected with fatal doses of tetanus toxin, and 48 to 60 hours after the injection, when the symptoms of the disease were just appearing, saline infusion was given. In nearly all cases, if taken early, the animals survived while the control animals died. In well advanced cases the saline infusion was found to be useless."

From the latter observation, it seems to me that an important point is to be deduced, namely, that saline infusion, if given

at all in toxæmias, should be given early. My experience with its use in all forms of toxæmia is, that the best results are obtained when it is given early, given continuously, and given slowly, no more than the tissues will absorb without producing distension.

(b) *Catharsis*.—I do not use the hydragogue cathartics in the treatment of puerperal eclampsia, unless there has been a history of constipation and a quick acting cathartic is indicated.

(c) *Diaphoresis*.—The hot pack offers a valuable means of elimination of toxic products, and I usually use it at the same time with the saline infusion.

A CASE OF PRIMARY SARCOMA OF THE TRACHEA.

BY H. M. GAY, M.D., AND W. I. TOMLINSON, M.D., PHILADELPHIA.

Clinical Report.—Patient was first seen in August, 1903, when she was vaccinated. She was a girl of 11 years of age, dark, spare and nervous; otherwise, she appeared in perfect health. Her mother said two years prior to that time she had had diphtheria, since which she had been subject to attacks resembling bronchial asthma. These seizures occurred during the winter seasons and were aggravated at night and in damp weather.

The patient was next seen December 26, 1903, at which time she was suffering from one of the attacks referred to above. She was sitting up in bed, with shoulders elevated, head thrown back and hands at her side supporting her thorax. Her breathing was quite noisy. The dyspnœa, which was apparently causing her great distress, was inspiratory in character. Examination of the throat showed moderately enlarged tonsils and a high-arched palate. The breath-sounds over the larynx were loud and harsh, while over the chest sibilant râles were heard. The case was thought to be spasmodic in character and some medicine was left for that condition. When seen the next day, the patient was much improved. On the third visit she was running about the house apparently well. At this time, examination of the post-nasal space revealed moderately large adenoids, which bled readily from touch.

In consultation with Dr. C. S. Raue, removal of the tonsils and adenoids was advised to relieve the attacks, and accordingly this was done January 2, 1904. She progressed nicely for the first three days after the operation, but on the fourth day was seized with an attack excelling in severity any from which she had yet suffered. Dr. Raue intubated the child, but this did not afford relief. She was extremely cyanotic and intensely dyspnoëic, and her condition became so alarming that tracheotomy was advised and quickly performed at the West Park Hospital. The operation seemed to give the patient a little relief, but she lived only one hour.

Pathological Report.—A partial *autopsy* revealed a tracheal tumor, which, with the entire trachea and larynx, was sent to the Hahnemann Hospital Pathological Laboratory for examination. Further examination of the neck and thorax gave absolutely no evidence of primary or secondary tumor growth.

The specimen sent to the laboratory consisted of the larynx and trachea as far as the bifurcation. The trachea measured 9 cm. in length and 2 cm. in width. There was a tracheotomy wound 1 cm. below the cricoid cartilage and 1 cm. in length; the wound ended just above the growth.

The growth apparently sprung from the left side of the trachea at about its middle, and grew both externally and internally. Externally, the tumor is represented by a small hump on the trachea covered with connective tissue. This projection measured 3 cm. in its longest diameter and extended from the third to the ninth tracheal rings. It was roughly triangular in shape, with the apex below. On section, it was found to have a limiting capsule enclosing a whitish mass apparently cellular in character. The wall of the trachea was not involved to any extent. The tumor had grown between two of the cartilaginous rings without any erosion or harmful effect, except a displacement of the lower ring. Internally, there was a polypoid growth attached by a base 1 cm. in diameter. The growth extended 2.5 cm. down the trachea by a finger-like projection. The surface was quite smooth. On section, it was found to be made up of white cellular tissue. The internal portion of the tumor entirely occluded the lumen of the trachea. Neither the external or the internal parts gave any gross evidence of degeneration or hæmorrhage.

Microscopically, it was found that the growth was similar in structure in both internal and external portions. The inner projection showed a capsule consisting of a layer of stratified epithelium beneath which was a thin layer of connective tissue containing a few bloodvessels. The external portion showed a capsule of connective tissue. The tumor proper consisted almost entirely of cells in which two types could be distinguished, spindle and epithelioid cells. The spindle cells, which were especially numerous in the external growth, exhibited columnar and fusiform nuclei and occurred in bundles cut in various directions in our sections. Their protoplasm seemed to take a pinkish hue with the Van Gieson stain. The bundles formed nests or enclosures for the epithelioid cells. In some of these nests the cells took a distinct adenomatous arrangement of a single layer of cubical or columnar cells. In others, they filled the enclosure irregularly. The amount of protoplasm in proportion to the size of the nucleus was small. A little free blood was observed in the sections, but no bloodvessels were seen in the tumor proper. Lymph spaces also were absent. A few polymorphonuclear neutrophils were seen in section from the inner growth. Degeneration was practically absent except in a small tumor island in the capsule of the outer growth, in which several collections of granular matter were seen.

This tumor was atypical enough to cause considerable hesitancy in making a diagnosis. In it was seen evidence of such growths as fibro-adenoma, adeno-carcinoma, alveolar sarcoma and mixed-cell sarcoma. It must be remembered that not a few neoplasms have characteristics which could class them with one of several tumor groups with almost equal justice. The tumor just described was an example. The conclusion reached was that it was a sarcoma of the mixed-cell type.

The rarity of tracheal tumors will be appreciated by quotations of figures comparative of their frequency. Out of 42,635 cases of disease of the upper respiratory tract, Moritz Schmidt¹ observed but 3 tracheal neoplasms. The same authority² found 7 tumors of the trachea among 3120 new growths of the upper air-passages. According to Schmidt's³ figures, neoplasms are about 300 times more frequent in the larynx than in the trachea.

Excluding from the true tumors tubercular and syphilitic in-

filtrations, post-tracheotomic vegetations and intra-tracheal thyroids, Bruns,⁴ in 1898, was able to find 140 primary tracheal growths. Rosenheim and Warfield⁵ recently collected 17 additional tumors, which, with 2 of their own, made 159 cases. Five of these growths are spoken of as "amyloid tumors," a term which we do not exactly understand. We do not know of amyloid neoplasms, and prefer to leave these off the list; this would make their total 154 cases. Daland and McFarland have just reported before the American Medical Association (Atlantic City, 1904) a carcinoma of the trachea, which may be added to the above. We feel reasonably sure that Beebe's⁶ thorough and interesting report of a medullary carcinoma of the trachea has not been included in any previous tables, and adding this case with our own to those on record, we make a total of 157 primary growths of the trachea so far reported.

Ninety-nine, about two-thirds of the tracheal tumors, are benign, papillomas and fibromas being most common, as in the larynx. Quite a number of chondromas and chondro-osteomas are reported; and there are also a few cases of adenomas, lipomas and lymphomas on the list. There are listed to date 58 primary, malignant growths, of which 35 are carcinomas and 23 sarcomas. Carcinoma was formerly supposed to be extremely rare, and Koch⁷ was responsible for the statement that sarcoma was more frequent. Present tables show that this is not a fact. Our case makes the twenty-third sarcoma reported. American medical literature is particularly scanty in such reports, and as far as we know the present case, that of Beebe's, and that of Daland and McFarland (to be published), are the only records of primary malignant tracheal tumors in this country.

These malignant growths are frequently local, and metastases are not the rule. There were no secondary growths in our case, but its situation and progressive enlargement were sufficient to make it malignant in character. With slow growth, these tumors might be practically benign, as in Schroetter's⁸ sarcoma, which was under observation twenty years. Furthermore, in this site, there is no tendency of the sarcomas to ulceration and perforation—also benign characteristics.

As far as removal is concerned, there is a case reported by Meyer-Huni and Kaufman,⁹ in which the extirpation of a sar-

coma was followed by recovery. The diagnosis of the nature of the tumor, however, was somewhat doubtful. Schmidt¹⁰ reports a patient alive two years after the removal of an epithelioma. Considering their local nature, operation would seem to offer hope, though some observers believe the malignant growths are uniformly fatal. The diagnosis is seldom made until late, often post-mortem, and the prognosis probably varies a great deal with the period at which the tumor is recognized. These tumors kill in the majority of cases by their direct local effect.

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¹ Schmidt, M. Quoted from von Bergmann, *System of Practical Surgery*, Vol. II., Lea Bros., 1904.

² Schmidt, M. *Die Krankheiten der Oberen Luftweg*, Berlin, 1903.

³ Schmidt, M. Quoted from *American Text-Book of Diseases of the Eye, Ear, Nose and Throat*, 1899.

⁴ Bruns, P. Heymann's *Handbuch der Laryngologie und Rhinologie*, 1898, Bd. 8.

⁵ Rosenheim and Warfield. *American Journal of the Medical Sciences*, June, 1904.

⁶ Beebe, C. C. THE HAHNEMANNIAN MONTHLY, Vol. VII., No. 9, September, 1885, Philadelphia.

⁷ Koch. *Ann. des Maladies de l'Oreille*, etc., p. 682, 1890.

⁸ Schroetter. *Deutsche Medicinische Wochenschrift*, 1901, No. 28.

⁹ Meyer-Huni and Kaufman. *Corresp. bl. f. Schweiz. Arztl.*, 1880, No. 9.

¹⁰ Schmidt, M. Quoted from *American Text-Book of Diseases of the Eye, Ear, Nose and Throat*, 1899.

THE DISCOVERY OF RADIUM.—It is an interesting fact that the talented savant, Dr. Curie, who so recently has revealed to the scientific world the wonders of radium, is the son of a well-known homœopathic physician. The elder Dr. Curie is still living near Paris. His father, the grandparent of the discoverer of radium, was also a physician. So it seems as if homœopathy, or at least one homœopathic physician has done something towards advancing the cause of science, even if indirectly.

EDITORIAL.

AFFILIATION.

THE question of our affiliation with the so-called old school of medicine, like Banquo's ghost, will never down, but is constantly reappearing in different quarters and under various guises. In the July number of the *Maryland Medical Journal* it rises in a very dignified and rational manner in Dr. Price's address, as president, before the Maryland State Homœopathic Medical Society, on "The Ethical Relations of the Dominant Schools of Medicine," and in the comments thereon by the (allopathic) editor.

This elusive phantom seems to have been revived by the adoption of Principles of Medical Ethics, by the American Medical Association in May, 1903, in which there is nothing to prevent its members from consulting with homœopathic physicians; an apparently great advance beyond the standpoint of the code, dating from 1847. As Dr. Price candidly acknowledges, the restrictions of the code were in a great measure justifiable, when we consider the want of real medical knowledge which characterized so many of the early practitioners of homœopathy, so that the seeming advance in liberality is in reality merely a tardy recognition of the fact that homœopathy has not been idle during these years, and that the homœopathic physician of the present day is in every way the equal of his allopathic brother, in breadth of education, honesty of purpose, therapeutic ability, and mental soundness. This the public has long ago discovered for itself, and no doubt this fact has had some little influence in bringing about the concessions and new ethics.

It matters but little what motives have given rise to the tone of conciliation which is heard in many quarters accompanied by greater liberality in professional relations; the first point to

be decided is what advantages will accrue to homœopathy from affiliation. We need not concern ourselves with the benefit to be derived by the old school, for that is self-evident: the chance, without losing caste, of becoming acquainted with the possibilities of a mode of cure, founded upon a principle and not upon rank empiricism, would of itself be of inestimable advantage to the young physician of independent turn of mind, unbiassed by the weight of precedent and the authority of *ex cathedra* ignorance. We think Dr. Price has struck the right key, which it would be well for all those of our own school to heed, who are continually prating of the benefits of affiliation. He says: "The homœopathic practitioner has grown careless of whether or not his older brother recognizes him officially. He cares little whether he may join orthodox societies; he has become self-sufficient, and has within his school those who are the equals in educational qualifications, experience and skill, of the men in the same lines of work in the older school. What difference, then, does it make, at this late day, whether or not the American Medical Association decides that he is fit for membership or for consultation?" On this basis, which must be acknowledged to be a correct one by all self-respecting homœopaths, there is no necessity and no special benefit to be derived from affiliation. In the eyes of the State the practitioners of the two schools are *theoretically* equals, since the establishment of the State Board of Examiners. Those who now obtain licenses to practice are, thereby, declared to possess all the qualifications necessary to the practice of medicine, regardless of school, so that affiliation is unnecessary if public recognition is the object sought. The *practical* recognition of homœopathy by the State is slowly, but surely, being brought about by means other than affiliation, means which do not destroy its individuality, nor submerge its adherents in the struggling mass of "physicians."

Convinced by such considerations that there is no necessity nor utility in affiliation, we are prepared to examine dispassionately whether this proposed reconciliation is altogether as honest and liberal as it might at first sight appear, and whether there are not disadvantages and dangers which would render it inexpedient, to say the least.

We are expected, before receiving the right hand of fellow-

ship, to drop the "sectarian name, homœopath," and to profess that our practice is not founded on an exclusive dogma. To anyone acquainted with the present status of homœopathy, and the almost universal conviction that, at least at present, *with*, but perhaps only *in consequence of* our limited knowledge, our law is not of universal application, these two requirements are not altogether unreasonable. The American Medical Association may, as any other association, determine the terms upon which applicants may be admitted to its fold, but as Dr. Price very pertinently asks, "Would we be permitted to discuss homœopathy at the meetings of these organizations and enter freely into an account of the homœopathic treatment of our cases? Would we not, as a matter of fact, be expected not only to drop the 'sectarian name,' but also to refrain from all mention of the practical application of homœopathy, or even to give expression to a belief in the law?" To which the allopathic editor of the *Maryland Medical Journal* answers with commendable candor, "Our permissions and expectations have so often been brought to nought by men in our own ranks, that we dare not say what we shall expect or permit our homœopathic friends to do with liberated faculties. Dr. Price's questions cannot be answered except by the experiment." Is the play worth the candle? Is the experiment worth the risk?

Every true lover of homœopathy would hesitate to do anything which would tend to obscure the great good it has already accomplished, and reduce it to the level of the numerous vagaries which have marked the history of medicine in the past, and which are at present either entirely forgotten, or spoken of only with contemptuous pity. Such would, however, be the direct and inevitable result of affiliation. The commenting editor, for whose honesty and candor we cannot refrain from expressing our most sincere admiration, says, "Dr. Price believes that the homœopathic law of therapeutics is an important part of medical truth. If such it be, and if it can be engrafted and made to grow upon the body of accepted scientific truth, then the faith of the homœopathist will indeed be engulfed and his distinctive marks obliterated. It would be a great triumph, but very poor politics, to make a wholly successful end of Hahnemann's contention." Further, "We have not removed the barriers in the belief that the distinctive homœopathic faith

can or will or ought to be planted in our field." "For the fully persuaded adherent of homœopathy the question appears to be whether he shall risk the disintegration of his party for the sake of propagating his faith." As our faith is gradually, but surely, percolating through the mass of dense ignorance and prejudice, why should we be willing to risk "the disintegration of our party" (*sit venia verbo*), in our endeavor to accomplish the same end by means which are just as likely to lead to a corrupting or suppression of the faith?

It is no mark of oversensitiveness or of unwarranted suspicion to believe that much of this seeming liberality is prompted by the desire to suppress and engulf a successful rival. Dr. Cathell, one of its present advocates, states his belief that the restrictions enforced by the code were "an unwise method of dealing with the homœopathic portion of our foes, and one that had the directly opposite effect from that which was intended;" and, that the surprising growth of the homœopathic school was due to "what all our enemies forthwith stigmatized as persecution." In this he is, no doubt in a great measure, correct. We, therefore, are justified in the belief that he, at least, is about attempting the other method when, in a paper before the Medical and Chirurgical Faculty of Maryland, he says, the homœopathic profession consists of a "body of educated physicians under the laws of the various States, men of good professional character, correct morals, and much esteemed by those who know them best." Now, although we know from a familiar hymn, that "the vilest sinner may return," the change in the sentiments of this same Dr. Cathell, since writing the 9th edition of his *The Physician Himself*, in 1889, is startling, to say the least, and a very remarkable instance of the influence of divine grace, or enlarged experience or—of enlightened diplomacy. In his book, in the course of a lengthy but amusing diatribe against homœopathy, we find amongst other gems (his style is always racy) the following: "Examine the homœopathic creed closely, and carefully watch the practice of all those who claim to practice under it of whom you have personal knowledge, and you will find few (if any) who honestly do so. The number of those who pretend to practice homœopathy may be still on the increase, yet pure homœopathy itself is rapidly disappearing. I doubt whether there is at this time a

pure Hahnemannian homœopath in Maryland." "Show a decent respect for the real homœopath, and for every one's views if honestly held, but carefully shun the fellows who, as the ass did when in lion's skin, plume themselves as homœopaths simply as a sham to deceive the public because, just at this time, it pays." "Inquiry will show that many of the latter were formerly fourth- or fifth-rate regular practitioners, who were crowded out of the profession into their present occupation by the well-known law of "survival of the fittest," and that many of the remainder obtained what medical education they got, in regular colleges, by falsifying about their future intentions." Then there was perhaps one poor pure homœopath in Maryland (My Maryland! Oh, My Maryland!) flocking somewhere by himself, all the others were frauds and deceivers; now the homœopathic profession consists of "a body of educated men, etc." (*vide supra*). A remarkable change to have taken place in so short a time. There must have been a tremendous fatality among the homœopathic physicians during these last few years, beside which the purging by fire of Sodom and Gomorrah seems but a Fourth of July celebration with toy-pistols.

We are justified, then, we think, in asserting that affiliation with the old school is not necessary, nor would it be of benefit to homœopathy, but, on the contrary, would be fraught with danger, not only to it "as a party," but to the truth which it teaches. Even our candid editor says, "We are of the opinion that any considerable movement of the homœopaths towards affiliation with the 'regulars' would not give them any advantages as a party."

Let us, therefore, again disregard this phantom of affiliation, and proceed on the even tenor of our way, without troubling our selves, just at present, about the requirements we shall make, should any large number of "regulars" seek to affiliate themselves with us. "Sufficient unto the day is the evil thereof."

SMALL BLEEDING ULCER IN NOSE.—For the cure of obstinate epistaxis due to that very common cause—a small ulcer upon the septum near the anterior nares,—Dr. T. L. Shearer recommends ferrum phos. 6x, one grain every three hours at first, then three times daily. He also uses a cerate made from calendula and boric acid, and praises the latter as an all-round agent for the ulcerated conditions of the nasal cavity with formation of crusts.—*Hom. E., E. and T. Journal*.

THE MODERN THEORIES OF IMMUNITY TO BACTERIAL DISEASES.

For centuries it was observed that certain individuals and animals were immune to diseases to which others were susceptible, and that it was possible to artificially establish an immunity, notably by vaccination. The practical importance of these observations was recognized, and many attempts were made to explain how the organism was thus able to defend itself against the inroads of disease. These inquiries into the nature and cause of immunity were greatly stimulated by the recognition of bacteria as a cause of disease. Later came the discoveries of Behring and Bouchard, that if an animal receives repeated injections of a pathogenic micro-organism the body develops a specific bactericidal power against the micro-organism. It was also shown that repeated injections of a toxin into an animal caused the development of an antitoxin. These facts form the basis of the modern serum treatment of bacterial diseases.

One of the earliest attempts to explain immunity was the "exhaustion theory" of Pasteur. He supposed that after a certain time the micro-parasites used up all the pabulum in the body suitable to their development and that being exhausted they died for want of food. Next came the "noxious retention" theory of Chauveau. According to this view the micro-parasites formed certain substances which accumulated in the body and finally caused the death of the parasites. Further investigations developed facts which were incompatible with both of these hypotheses and they were abandoned.

Two theories of immunity are at present attracting the interest of scientific observers. The "phagocytosis" theory of Metchnikoff, and the "lateral chain" theory of Ehrlich. As Welsh has pointed out, both of these theories have for their foundation the nutrition of the cells. In dealing with disease we are not dealing with diseased organs, but with diseased cells, and as the cell is the centre of pathological processes so it is the centre of defensive processes. Metchnikoff's theory deals with the vital forces of the cells, while Ehrlich's views are

based on chemical reactions. Both agree, however, that the essential substances which destroy bacteria and antidote their toxins are the results of cellular activities.

Metchnikoff teaches that certain cells of the body are subject to certain chemical affinities which determine whether they shall ingest and destroy micro-parasites invading the body. He divides these cells into two classes; the microphages, which destroy bacteria, and the macrophages, which destroy blood-corpuscles, tissue remnants, etc. Buchner and Nuttall showed by experiment that the body juices were capable of destroying bacteria independent of the phagocytes. This Metchnikoff explains by stating that an enzyme (microcytase) exists in the phagocytes, and when they are destroyed by irritation or inflammation this enzyme is liberated in the blood and is capable of setting up changes similar to those which took place in the phagocytes.

Ehrlich's theory of immunity, which is now the generally accepted hypothesis, is based upon the fact that a cell is capable of producing substances antagonistic to alien cells and their products; the action of these antagonistic substances being chiefly chemical. Ehrlich supposes that a cell consists of a complex chemical substance with which are associated numerous atom-groups known as "side chains" or *receptors*. The function of these receptors in health is to chemically unite with nutritious molecules and thus nourish the cell. When the toxins of bacteria are introduced into the blood certain receptors combine with the toxin molecules, which combination is unfavorable to the life of the cell. In its effort to compensate for the loss of the receptors combined with the toxic molecules, the cell forms a superabundance of receptors, many of which are thrown off into the circulation. In the circulation they still have the power to combine with toxin molecules, and when this combination is effected the toxin molecule is no longer free to injure other cells. These cast off receptors, therefore, constitute our antitoxin. Experimental evidence indicates that this neutralization of toxin by antitoxin takes place according to the ordinary laws of chemical reaction.

The destruction of bacteria by a bactericidal serum is much more complicated. Bordet demonstrated that the power of such serum to destroy micro-parasites depends upon the existence of

two substances, neither of which alone is active. The first of these substances exists normally in the blood, and is known as the complementary body (alexine, addiment). The second substance is normally present in the body cells, where it exists as a cell receptor. It is reproduced in excess in the same manner as the antitoxin receptors. It differs from the antitoxin receptors in being able to form combinations with two other groups of molecules. On this account it is given the name of *amboceptor*. With one of its affinities the amboceptor unites with the micro-parasite and with the remaining affinity it unites with the complementary body. The complementary body, when thus brought into relation with the micro-parasite through the medium of the amboceptor, destroys the parasite by a ferment (?) like action.

In summarizing this theory, Behring states that "the same substance, which when incorporated in the cells of the living body is the prerequisite and condition for an intoxication, becomes the means of a cure when it exists in the circulating blood." This statement is certainly not based on the law of "*contraria contrariis*," and we are warranted in hoping that the investigations of Ehrlich and his followers may help to demonstrate that the homœopathic remedy is capable of destroying pathogenic bacteria and their toxins by specific stimulation of the cellular activities.

AN EXAMINATION EXPERIMENT.

It is universally admitted that examinations as a test of knowledge are necessary evils. No one even pretends that they can be accepted as an invariable indicator of the proficiency of the examined, for so many accidental factors step in to interfere with the accuracy of the test. Of course, with a large number of examinations, these factors practically nullify each other, so that in the long run, the examination becomes the best method, poor though it be, for determining proficiency.

During the winter just passed, the Faculty of the Hahnemann Medical College of Philadelphia put into operation an examin-

ation system, the true value of which can only be determined by its results. The students were notified that they were to expect test-examinations at irregular periods throughout the term, without any previous notice whatever for preparation. Students who obtained a general average for the term of over 90 per cent., it was announced, would be exempt from examination in all branches in which said average was attained.

Among the students, this system did not seem to be very popular, for they claimed that instead of being "on the anxious bench" only during the last six weeks of the term, they were now kept worried throughout the entire term. We would prefer to express the situation somewhat differently, as follows: Students, instead of limiting their hard study to the last six weeks of the term, studied evenly throughout the course. In other words, the new plan did away with the process known as "cramming." There was no longer the opportunity of neglecting study while the lectures were fresh in the minds of the students.

Now as to the results of this system: The senior class contained among its members, as all classes do, certain members who were well known to be likely to fall in the rear. Indeed, some of them had exhibited such a tendency to a remarkable degree in their junior studies. These, and others who failed to make good at the test-examinations, were carefully watched by their instructors, received useful hints as to their delinquencies and the means for overcoming them, and the final result was that not one member of the graduating class failed to obtain the average necessary for obtaining his degree. Such a fortunate result has not been accomplished by any class during the past twenty years.

It may be suggested that the coaching had much to do with the result. We believe that the coaching did help, in that it taught certain men how to acquire knowledge. Certainly, it was remarkable to note the superiority of the class in their practical clinical work as compared with previous classes working under the old system.

Now, when it came to the State Board examinations, fifty-one members came up before the Pennsylvania Board, and every one of them passed. Six were examined in New Jersey, and all were successful.

THE AMERICAN INSTITUTE OF HOMŒOPATHY.

THE Sixtieth Annual Meeting of the American Institute of Homœopathy, though numerically speaking was not equal to some of the previous sessions, was marked by unusual interest and enthusiasm. Niagara Falls proved to be well adapted as a meeting place for the Institute, not only on account of its many scenic attractions, but also because of its ample hotel accommodations. Special praise is due to the members of the Western New York Homœopathic Medical Society for their hospitality and their courtesy in arranging for the accommodation and entertainment of the members of the Institute and their families. The papers were, with few exceptions, carefully prepared and the subjects treated in a logical, scientific manner. We are glad to see the time is past when a man can present to the Institute a shallow, hurriedly written paper, without incurring just criticism for his indolence or incompetence. Properly directed, such criticism will tend to raise the standard of the papers presented, and thus add to the practical value of the meetings of the Institute. We particularly commend to every physician—homœopathic or otherwise—the masterly and liberal address of President Sutherland. We heartily concur with the emphasis he has laid upon the breadth of the knowledge and of the duties required of a homœopathic physician. The attempt in some States to pass a law restricting homœopathic physicians solely to the use of potentized remedies shows that the public, and sometimes homœopathic physicians themselves, fail to realize that a knowledge of general medicine and medical sciences is a prerequisite to the development of a successful homœopathic physician, and that “all that pertains to the great field of medical learning is his by tradition, by inheritance, by right.”

While the growth of the American Institute of Homœopathy has been little short of phenomenal, there are still many homœopathic physicians whose names do not appear on its rolls. It is superfluous in these days of social and commercial organization to urge the importance of organization among

physicians. Many homœopathic physicians who are indifferent, or actually opposed to the Institute, should remember that most of the privileges they enjoy, and the legal recognition they have received, have been won through the efforts of this great national organization. The instincts of self-preservation, as well as of gratitude, must therefore impress upon every homœopathic physician the importance of uniting with his fellow-physicians in carrying on the work of the American Institute of Homœopathy. If every individual would do his duty in this respect, the future of the Institute would be more glorious than its past, and its utility to the profession and to the public be proportionately increased.

A DEFENSE OF THE HIGH POTENCIES.—Dr. F. H. Lutze's article in *North American Journal*, for May, with the editorial in the same number upon the same subject will afford entertaining reading to anyone who is interested. Dr. Lutze is a homœopath and a firm believer in the superiority of highly attenuated or potentized medicaments. In fact, he does not seem to believe in anything else. And that's a pity. It is pretty difficult to say what ailed the patient whose case is related, but that does not matter. The point is that after years of suffering and more or less torture he was at last treated by Dr. Lutze, who administered only the higher preparations of nux, kali, calc., rhus and sulphur; and within a year had recovered almost completely. It was an unusual case; we have seen one or two very similar ones; they too recovered, but not under strictly homœopathic treatment. We are sorry to read Dr. Lutze's comments and criticisms upon those who do not believe in the highest potencies, because we feel inclined to believe that some of them are unfair. He says that the libraries of the low-potency men consist of books that are not useful in the proper selection of the indicated remedy. He mentions a long list of the books which homœopaths ought to have, but the list is by no means a complete one, as there are others just as important and useful. He calls those who differ with him in belief by unkind names. Gentlemen! Let us get closer together, not farther apart. Let us see how we can make the impress of homœopathy upon the science and art of therapeutics, during the twentieth century, as deep and lasting as did our forefathers during the century that has just closed. We all have our faults and our shortcomings. Indeed it is probable that if the American Institute of Homœopathy was a little more like the International Hahnemannian Association, and the International Hahnemannian Association a little more like the American Institute of Homœopathy, there would be no reason for the existence of one of them. And there ought not to be a division in the ranks.

GLEANINGS.

PURE OLIVE OIL AND ITS USE IN THE TREATMENT OF CHRONIC DYSENTERY AND ALLIED CONDITIONS.—Rutherford writes:

1. The internal administration of olive oil largely increases the flow of watery bile.

2. The normal liquid bile possesses certain physiological properties: (a) its presence in the intestines favors the absorption of fats; (b) it stimulates intestinal peristalsis; (c) it acts as an intestinal antiseptic, both directly and indirectly. Herter has quite recently announced a new function of the bile, namely, that of dissolving very readily certain specific bacteria of a pathogenic nature. It is still further contended for bile that it has the property of reinforcing the ferment action of the pancreatic juice.

In this connection it is of quite equal importance that, following upon the internal administration of olive oil, typical cases of chronic dysentery, practically without exception, show changes in their conditions as follows:

1. Positive evidence of increased bile in the fæces.

2. Decrease in the number of daily bowel movements and marked improvement in the character of the same.

3. Gradual cessation of signs of fermentation and putrefaction along the gastro-intestinal tract, and consequent subsidence of pain and tenderness.

4. General systemic improvement, gain in appetite, repair of digestive facilities, symptoms of improved nervous-system, and rapid gain in weight and strength.

5. Apparent positive cure after an average time of two months, and with few recurrences.—*American Medicine*, March 12, 1904.

William F. Baker, A.M., M.D.

DISORDERS OF THE SPLEEN.—(Taylor.)—In this article the writer reviews all the disorders of the spleen, ætiologically, pathologically and symptomatically, especially with reference to their clinical importance. He believes the spleen is "more sinned against than sinning." That it is rarely responsible for lesions, while it suffers much from disorders of associated organs, that in the various infective processes, in splenic anæmia and in infantile anæmia it probably is poisoned from without; that in the different forms of leucæmia it is overcharged with the excess of leucocytes; and that only in splenic anæmia is the charge made against it that itself, having been poisoned from the bowel, it subsequently inhibits, by fresh production of poisons, the formation of the blood. It is in these diseases that good results have been obtained by splenotomy, though it must be admitted that death has taken place shortly after the operation. In the other cases the primary condition must be treated, and in so far as that can be controlled or will spontaneously recover, the enlargement of the spleen may be expected to subside. In splenomedullary leucæmia considerable reduction in the size of the spleen has occurred under arsenic, and sometimes under oxygen inhalations, but relapse in this disease appears to be inevitable.—*The Lancet*, June 4, 1904.

William F. Baker, A.M., M.D.

RADIUM RAYS AND THEIR ACTION ON THE NORMAL AND BLIND EYE.—(Graef.)—The writer reports the result of his official investigation of the optical properties of radium. It is perfectly true that radium gives off rays in the dark which are visible to the human eye, but it is necessary to recognize these rays as being of two kinds. In the first place, a species of fluorescence is excited in certain bodies which then give off indirectly rays of ordinary light; and in the second place, the radium itself throws off peculiar visible emanations called radium rays. Many objects, such as paper, can be excited to the fluorescent state, notably screens coated with platino-cyanite of barium, but it is easily demonstrated that the rays so given off are merely those of ordinary light as they are obstructed by opaque bodies and throw shadows. In other words the effect is similar to that produced by placing a lamp or candle behind a screen. The marvelous feature consists in the fact that radium can continue to serve as a source of light indefinitely, without the loss of substance.

The true radium rays can be detected by holding the substance a short way off from the eye after the retina has been subjected to a dark room. When radium is at a distance of about 10 cm. from the eye a peculiar diffuse, sea-green radiance suddenly becomes visible, increasing as the eye is approached, and diminishing with greater distance from the substance. It is impossible to determine the direction of the rays, as they penetrate all structures and give the same effect at the side as in the front. It has been the view of some observers that this effect is the result of fluorescence induced in portions of the eye itself, which thus are excited to throw off ordinary light rays. This the author denies, because the radium does not bleach the usual purple of the retina.

Loudon's experiments are misleading since he does not particularize exactly the visual conditions of his patients. Once the foundation of the rods and cones is destroyed, the eye becomes entirely unable to transmit visual concepts. His patients who had a perception of light when brought before radium screen would have had the same experience if placed before an ordinary light screen. At present, there is, therefore, no prospect of help to blind from radium.—*Deutsch. Med. Wochenschrift*, March 24, 1904.

William F. Baker, A.M., M.D.

THE BEHAVIOR OF THE COSTAL ARCH IN DISEASES OF THE ABDOMINAL ORGANS, AND ITS IMPORTANCE AS A DIAGNOSTIC SYMPTOM.—(Eliot.)—The conclusions reached are:

1. The symptom of costal resistance may always be elicited in the acute and subacute inflammatory processes of the contiguous underlying organs.

2. In chronic inflammation of these same organs it is present irregularly, either generally when the organ is increased in size, or during a transitory exacerbation of the chronic inflammatory process. In neoplasms or cysts, increased costal resistance may be obtained only when the growth has reached a considerable size and mechanically interferes with the movement of the arch. The degree of resistance is in direct ratio to the intensity of the inflammatory process. The increase of costal resistance is most marked in that segment of the costal arch which is situated closely to the original point of infection or, in the case of a neoplasm, to that part of the arch which lies over the most prominent part of the tumor. Its value as a diagnostic symptom is

greatest in pathological conditions invading the upper half of the abdominal cavity, especially of the liver, stomach, pancreas, gall-bladder, spleen, duodenum, kidneys and an extensive aneurysm of the abdominal aorta. In cases of empyæmia, only when the abscess cavity occupies the lowest part of the thoracic cavity is there any resistance of the costal arch proper. The presence of asymmetry in the elastic recoil is very much less frequently observed than asymmetrical increase in the costal resistance, the former being present only in the cases of cysts, neoplasms and inflammatory exudates in which the acute symptoms have subsided, while it is invariably absent in all of the acute and subacute inflammatory processes. With the subsidence of the inflammatory process, whether by radical or palliative procedure, the costal resistance again returns to its normal condition. The presence of this symptom is very valuable, not only in facilitating accurate diagnosis, but also in serving as a useful guide to that incision through which the inflammatory focus may be most rapidly exposed and successfully treated. The proper and skilful technique in determining the presence or absence of this symptom may be easily acquired, and therefore the application of the symptom may be utilized by the general practitioner, and not confined to those engaged in the pursuit of a specialty.—*Medical News*, April 30, 1904.

William F. Baker, A.M., M.D.

SOME FORMS OF PSEUDO-APPENDICITIS.—(Bollentint.)—Appendicitis may be simulated by entero-typhlocolitis, or, as he calls it, "intestinal lithiasis." Differential points are the following: The subject who is attacked with appendicitis is nearly always seized unawares in the midst of robust health. In attacks of entero-typhlocolitis there has nearly always been a period of digestive troubles which the patient will remember even if he has never examined his stools, and if he is unaware that he is suffering from entero-typhlocolitis. He will recollect, when interrogated, that he has already had attacks of pain in the left side or in the transverse region of the abdomen. He will say that he is subject to intestinal troubles, constipation, diarrhœa, especially under the influence of cold or departure from regular diet. In appendicitis the maximum of pain is in the cæcum, very near the appendix, but in entero-typhlocolitis the pain is not definitely localized. It radiates over the path of the colon, principally on a level with the hepatic and splenic flexure. There is another point, often very painful, between the umbilicus and the ensiform. In this case it is the transverse colon which is the seat of the pain. Diagnosis, then, will embrace examination of the stools, to see if they contain slimy substances, or false membrane or sand. When the diagnosis is once determined, and all idea of appendicitis rejected, treatment will be given for a paroxysmal attack of entero-typhlocolitis. It will, however, be well to watch McBurney's location, and always bear in mind the possible inflammation of the vermiform appendix.—*The Lancet*, April 23, 1904.

William F. Baker, A.M., M.D.

MANAGEMENT OF FEVER IN CHILDHOOD.—(Murray.)—The writer very aptly insists on a thorough analysis of each case with a view to finding out its cause if possible. In the hygienic and accessory treatment the writer has also given us much valuable information. In young children, where there is not much prostration, rectal irrigation is of value, but where there is great prostration the ice cap or sheet pack may be employed. His method is as follows:

Remove the clothing, dip the sheet in warm water, wrap carefully and smoothly about the child; over this apply a second sheet wrung out of cold water, institute gentle friction with the hands, to prevent capillary engorgement. Cold water is applied as needed. Two symptoms should be kept in mind: (1) the character of the breathing and (2) the tendency to cyanosis. If either occur, remove the child at once and place between warm blankets. Ordinarily the application is continued from ten to fifteen minutes, at the end of which time the child should be well rubbed until it glows. When the fever has been complicated by convulsions, apply cold baths to the head, or use water-bag for a pillow, after the child has been put to bed. If the temperature is dangerously high, nothing is so effectual or so likely to save life as immersion in a tub of cold water, cooled by the addition of ice. The diet should be regulated carefully and elimination favored.

In ordinary fevers food must be liquid and cool, in vomiting cold, in respiratory diseases warm, in collapse hot.

The best feeding time is during remission. When the evening rectal temperature is 100° F. or above, give milk containing 2 per cent. fat and 1 per cent. proteid and 5 per cent. sugar. When the temperature is lower, full strength milk may be used. When the temperature is steadily below 100° F., but above normal, give milk, bread and butter with first, third and fifth meals, broth, etc., with midday meal. When the evening temperature is steadily normal, give cereals and sterile cream.—*Medical News*, June 18, 1904.

William F. Baker, A.M., M.D.

THE FEEDING AND CARE OF CHILDREN AFTER THE FIRST YEAR.—Roland G. Freeman calls attention to the fact that while the feeding of the infant during the first year is usually well discussed by all pædiatrists and uniformly treated, still the feeding after that time is a rather neglected topic.

In order to secure the best results in the care of children during this period we must control the feeding, exercise, rest, ventilation and exposure to fresh air.

It is always desirable to study each child as to its individual capacity for food and tolerance for different kinds of food; at the same time, a very large proportion can be kept satisfactorily on the sort of dietary to be recommended. The indications that are the best exponents of well-being in children are healthy complexion; clean tongue; well digested movements.

Five meals are to be allowed daily, the hours being 6 A.M., 10 A.M., 1 P.M., 5 P.M. and 9 P.M. Milk is to be the chief article of diet. At 12 months 8 to 10 ounces of milk are the exclusive article of diet, excepting at the noon-day meal, when 4 ounces of gruel are added.

At 15 months a gruel is allowed for breakfast, and at noon a half ounce of orange-juice and a soft-boiled egg added to the list.

At 18 months a gruel for breakfast and supper, and for dinner orange-juice, 4 ounces of clear soup and a soft-boiled egg.

At 21 months the child may have bread and butter and a soft-boiled egg for breakfast, and bread and butter, soup, and scraped beef for dinner.

During the third year the 9 o'clock bottle of milk is cut out, and meat, vegetables and desserts added to the noon-day meal; the supper consisting of 10 ounces of milk, 6 ounces of gruel with bread and butter.—*Archives of Pediatrics*, June, 1904.

C. Sigmund Raue, M.D.

DISEASES OF THE EYE IN THE SO-CALLED HAY FEVER.—The author has been himself a sufferer from hay fever and he has found in the commencement of the trouble that painting the nasal mucous membrane with a 1-per-cent. nitrate of silver solution was a positive help, when associated with the instillation into the conjunctival sac of a 2-per-cent. solution of nitrate of silver twice daily. Zinc sulphate and the other astringents seem to have no effect. He found instillations of menthol very beneficial. He does not agree with Franke in thinking that the eye symptoms are reflex in character, but regards the conjunctivitis as a part of the disease. Prof. W. Kosker.—*Annals of Ophthalm.*

William Spencer, M.D.

NOTE ON A CASE OF BILATERAL BLINDNESS CONSECUTIVE TO MEASLES.—The amaurosis or amblyopia following measles, these authors state, may be either transitory and with or without fundus changes, or may develop into a permanent condition. This has been ascribed to meningitis, uræmia, retrobulbar neuritis, or to changes in the cerebral cortex. They report the case of a 13-year-old child in whom, during an ordinary convalescence from measles, a permanent blindness developed while the patient was asleep. When seen four months later by the author, the pupils were freely and equally dilated. The irides were immobile. The media was clear. The fundus was of a uniform orange-yellow color passing into a gray tint in the peripapillary and the macular regions. The retinal vessels were much reduced in size. Visual acuity was four-fiftieths in each eye. The form fields were reduced to ten degrees and fifteen degrees in the right and left eyes respectively. At a later period the fundus changes resembled those which are found in pigmentary retinitis, except that here the pigment deposits were somewhat larger. The condition is ascribed by the authors to an acute degeneration of the retina and optic nerve induced by toxæmia of measles. Marcel, Rollet and Blais.—*La Clinique Ophthalm.*

William Spencer, M.D.

CUPROCITRAL AND ITS USE IN TRACHOMATOUS CONJUNCTIVITIS.—Cuprocitral in a 5- to 10-per-cent. strength mixture of citrate of copper in glycerin ointment is, Von Arlt tells us, a pomade which is turquoise-blue in color and remains stable for one year's time when kept in glass boxes.

The ointment is introduced into the conjunctival *cul-de-sac* on a small flattened tipped glass rod, light massage being practiced for one-half minute through the closed lids. When the patient employs the ointment himself, the material is placed only into the lower *cul-de-sac*. The 5-per-cent. strength ointment is first used, being applied three times a day. Cuprocitral is used in the same class of cases as those in which sulphate of copper is employed and is not suitable to those cases in which there is a mixed form of disease—especially those which are accompanied by lymphatic conjunctivitis, those which are associated with marked secretion, and in advanced corneal lesions or ciliary irritation. The drug is not painful, it being neither an irritant nor a caustic. It can be applied with safety by the patient. The author has collected three hundred and six cases: of these, two hundred and sixty-three were much improved. The preparation was well tolerated in every instance. Dr. G. Von Arlt.—*La Clinique Ophthalm.*

William Spencer, M.D.

THE INFLUENCE OF HEREDITY ON THE EYE.—T. E. Weeks, New York, gives a somewhat cursory synopsis of this subject. The form, the color, pecu-

liarity of movements, as well as the deep tissues of the globe, are largely influenced by heredity; the tendency being increased by consanguinity.

Among the affections most commonly seen are ptosis, epicanthus, coloboma of the iris and choroid, aniridia, albinism, zonular and lamellar cataract, retinitis pigmentosa with and without pigment and glaucoma. By far the most common disease of the eye due to heredity is syphilis. The transmission of faults in the shape of the eye, whereby the various errors of refraction recur in the offspring, is not unusual. Muscular anomalies, particularly the various 'phorias, are not infrequently transmitted. Color-blindness of all degrees is also strongly influenced by heredity.—*Medical Record*.

William Spencer, M.D.

OBSCURE CAUSE OF DEATH IN THE NEWBORN.—The difficulties which attend the recognition of the cause of death in some newborn infants are well illustrated by Hammer in an article on the pathology of the newborn. Many a one has doubtless encountered these difficulties in cases where macroscopically no assignable cause of death was manifest, and in which the death resulted from no criminal violence or neglect, but was evidently due to some natural cause, whose recognition, however, was difficult or impossible. But a cause of death must be stated, and under such circumstances inanition is often mentioned. Hammer has reported in detail two such cases, in which a criminal factor was positively absent. In one case during the labor, lasting about twenty-four hours, the amniotic fluid was observed to have a penetrating odor and to be opaque and of a dirty yellow color. Immediately after the completion of the labor the woman had a rise of temperature to 105.8° F., with a relatively slow pulse of 112, while on the following morning there was but slight elevation of temperature, and the puerperal period progressed normally, except that the lochia contained numerous cocci and diplococci. The foetal heart-sounds during labor had been good, and on delivery the child moved actively. In about five minutes the breathing became impaired and, in spite of efforts to resuscitate it, the child died in half an hour. The post-mortem examination revealed no cause of death. Microscopically the heart muscle showed an absence of striation and granular opacity. Extensive interstitial changes appeared in the lungs, consisting of enormous thickening and proliferation of connective tissue, and the same condition existed in the liver and kidneys, with swelling of the epithelium of the latter. These changes could not possibly have been of recent origin.

In the second case the labor was normal, except that one hour after its onset the patient had a profuse hæmorrhage, which ceased on rupturing the membranes, and the labor progressed rapidly. The puerperium was normal. The foetal heart-sounds during labor had been irregular and rapid, and the child was stillborn. There were no external evidences of the cause of death. The microscopical findings were identical with those of the former case, in addition to fatty degeneration of the heart and liver. In the placenta of this case was found a pronounced thickening of the subchorial decidua with degeneration of its cells. The vessels were overfilled with blood, and the walls thickened; in others the lumen was occluded with connective tissue. Many of the villi were atrophic. There was no evidence of placental inflammation. These changes in the placenta were formerly regarded as evidences of syphilis, but lately other causes are known to produce similar changes. There were no signs of syphilis in either of these cases.

In endeavoring to explain the changes found, the author believes they were brought about by toxic matters circulating in the blood. The location of the infection is not material. Albert has recently demonstrated latent microbial endometritis during pregnancy. This condition the author believes to have existed in his two cases. In the beginning of pregnancy the decidua vera and reflexa become approximated by the growth of the ovum and grow together, the glands become flattened and closed and the contained cocci are imprisoned, though their vitality is not impaired. On the contrary their toxins may collect and act still more upon their surroundings. This may induce hypertrophy of the decidua, similar to the formation of tubercular granuloma. By osmosis the poisons gain access to the foetal circulation and may there induce the changes noted.—*Zeitschr. f. Geb. u. Gyn.*, Bd. 50, 213.

Theodore J. Gramm, M.D.

THE ADVANTAGES OF VAGINAL DRAINAGE AFTER ABDOMINAL SECTION. —Oberländer discusses this subject in connection with a review of a series of cases treated in Orthmann's clinic. Of 192 abdominal sections operated during three years, vaginal drainage was used in 39 cases (= 20.3 per cent.), which included 25 purulent adnexal tumors; 6 tubal pregnancies; 7 pelvic tumors; and 1 case of incipient peritonitis with intestinal injury after perforation of the uterus. In this group of cases there were only 2 deaths, in cases belonging to the first class.

After carefully protecting the intestines with gauze pads, the suppurating mass is removed and the field of operation mopped dry. The *cul-de-sac* is opened by cutting with scissors upon a forceps introduced into the vagina and pressing upon the posterior vault, the opening being then dilated with the forceps. The abdominal cavity is flushed with salt solution after the patient is let down from the elevated pelvic posture. The end of the iodoform gauze is then drawn through into the vagina, and about two yards are packed into the pelvic cavity. In most cases there was no attempt made by means of sutures to close off the abdominal cavity above the gauze to prevent prolapse of the bowels, but the uterus was placed upon the top of the gauze for this purpose. The gauze was removed on the tenth day.

From his experience in these cases he makes the following deductions:

I.—The simplest and best drainage is the vaginal abdominal drainage without closing off above. Iodoform gauze is to be used; in aseptic operations well sterilized gauze may suffice.

II.—Vaginal abdominal drainage is indicated:

1. When pus in large quantities has soiled the abdominal cavity.
2. When pus secreting surfaces, or areas denuded of peritoneum, or large cavities with ragged or infiltrated walls remain in the abdominal cavity.
3. In operations with existing or threatening perforation of the bowels.

III.—Vaginal drainage may be called for by parenchymatous bleeding from surfaces or cavities: 1. In extrauterine pregnancy; and 2. In only partially extirpated tumors, or after removal of such as have developed within the broad ligament.—*Zeitschr. f. Geb. u. Gyn.*, Bd. 50, p. 468.

Theodore J. Gramm, M.D.

NASAL DYSMENORRHOEA.—Kolischer (Chicago) has examined this subject with the result that he has divested it of some of the mystery apparently surrounding it. The conception that dysmenorrhœa in some instances depends

upon certain conditions in the nose, or could be influenced reflexly by local treatment of the nose, received attention in consequence of Fleiss claiming some years ago that labor cases could be conducted with absolutely no pain by the application of cocaine to certain spots of the nasal mucosa. Tests of this method failed to show convincing results. In 1897 Fleiss alleged that certain cases of dysmenorrhœa could be promptly relieved by applying a 20-per-cent. solution of cocaine to the so-called nasal points in the nose, and that such cases could be definitely cured by cauterizing these nasal spots. As confirming the existence of a certain relationship between the nose and the sexual organs, it has been pointed out that some male animals have sexual excitement from the odor of certain secretions from the female genitalia, and reference has also been made to the ancient tradition of the influence of perfumes upon the sexual passion. But the researches of alienists have shown that the susceptibility of the exciting influence of the odor of these secretions belongs to the realm of sexual pathology. Furthermore, inquiry among rhinologists discloses that the majority of these specialists do not know of any relation between periodical swelling of these parts of the nasal mucosa and menstruation. At the same time they say that very few individuals, especially in our large cities, will be found whose nasal mucosa is in a normal condition, so that there are very few whose nasal spots are not swollen or cyanotic or easily bleeding, and many of these persons do not suffer from menstrual disturbances. The raw mucosa more easily absorbs cocaine than a mucosa with intact epithelia, a fact for which some patients whose bladders have been cocaineized have paid with their lives. From an examination of reported cases and from some of his own experiments, Kolischer concludes that any effect obtained in dysmenorrhœa is due to the rapid absorption of cocaine applied in concentrated solution. He summarizes his views as follows:

1. The right to proclaim nasal dysmenorrhœa as a clinical entity is not established.

2. The influence of cocaine upon dysmenorrhœal attacks can be explained by the general intoxication of the system with this alkaloid.

3. Every patient suffering from menstrual pains should be examined for hysteria.

4. Administration of cocaine, especially in nervous patients, is not to be recommended, on account of the deleterious influence of this drug upon the nervous-system, and on account of the danger of educating cocaine fiends.

5. In cases in which no anatomical abnormalities and no hysterical foundation is to be found, massage and gymnastics should be used.—*Amer. Jr. Obs.*, 1904, June, 804.

Theodore J. Gramm, M.D.

BIRCH LEAVES, A TEA AS A SOLVENT OF STONE IN THE KIDNEYS.—Dr. A. Jænicke, of Breslau, asserts that an infusion of birch leaves have an actual solvent action on renal calculi, his attention having been called by Winternitz to its diuretic properties. To prepare it, take a teaspoonful of the finely powdered leaves, pour over this one-half a pint of boiling water, let it infuse for five minutes, boil it for the same length of time and filter. Let the patient drink a cup of this infusion mornings on an empty stomach, and evenings at 5 o'clock, continuing it for six months. Then after resting a month let him take up the treatment again two or three times during the year for a month,

leaving it off a month. The writer has used this drug in a number of cases with excellent results. He has observed it to cause the calculi to disappear from the kidneys, and proved it by radiosopic examination.—*La Semaine Medicale*, No. 15, 1904.

Frank H. Pritchard, M.D.

CHLOROFORM OR ETHER AS AN ANÆSTHETIC.—Professor Thorkild Rovsing, in an address before a recent meeting of the Copenhagen Medical Society on the "Question of Anæsthesia and the Choice of an Anæsthetic," ended it by an enthusiastic plea for ether, and ether alone, in all cases where a general anæsthetic is to be used, except, possibly, in obstetrical work. In spite of all endeavors to diminish the dangers, in spite of every improvement and precaution, hundreds and hundreds of persons die yearly from chloroform poisoning who otherwise might be alive to-day. In the large hospitals, where everything is foreseen, the patient prepared, the anæsthetic watched by the most experienced surgeons, and where all means of resuscitation are at hand, about one out of two thousand patients anæsthetized dies from this anæsthetic. Outside of the hospitals where the surroundings are more primitive, the proportion is still greater. If we had no other drug less dangerous we might continue with chloroform, but we have in ether an anæsthetic with which we can do everything that we can do with chloroform, and with less risk. It is doubtful if a case of death on the table from ether is known, and as to its after-effects, they are no more dangerous than those of chloroform. For our patients' sake, for our own sake, we should resolutely forsake chloroform and take up ether; and above all, this is to be laid to heart by the practicing physicians for whom and for whose patients the risk is greatest. The hospitals should first take up the work, for there the young physician is prepared for his profession.—*Hospitalstidende*, No. 7, 1904.

Frank H. Pritchard, M.D.

A LUBRICANT FOR CATHETERS, SOUNDS, ETC.—Dr. Casper suggests the following: Gum tragacanth, 3.0; distilled water, 10.0; purest glycerin, 20.0; oxy-cyanide of mercury, 0.25. This mixture remains antiseptic for a long time, even if it be exposed to the air, lubricates well and is easily removed, simply by water.—*La Nuova Rivista Clinico-Terapeutica*, No. 4, 1904.

Frank H. Pritchard, M.D.

CASE OF HÆMORRHAGIC SARCOMA OF THE THIGH.—Dr. Schoene, of Berlin, observed a case of hæmorrhagic sarcoma in a young man of 20 which is worthy of notice on account of the difficulties met with in making a diagnosis. Towards the end of October, 1903, several days after having lifted a heavy cask, which he had pressed against his patella, he began to feel gradually increasing, drawing pains in the left knee, but without fever or general malaise. In the early part of November he noticed the popliteal space swollen, which extended up into the right side of the thigh. A physician was consulted who diagnosed a fluctuating swelling and evacuated about a half a pint of pure blood. Received in the hospital at the end of December the patient was very much emaciated and anæmic, with seemingly normal internal organs. Examination of the blood revealed a slight leucocytosis. His left knee was moderately flexed and contracted, though the joint itself seemed sound. The lower third of the thigh presented a fusiform swelling about as large as a child's head, yet without sharply outlined borders, in the inner and posterior portions of the

thigh. The overlying skin was unchanged. Over all the enlargement there was a distinct fluctuating feel without any signs of any solid portion. The contours of the bones seemed normal except in one little spot where there seemed to be a hard and solid prominence. The growth did not pulsate, nor were there any abnormal sounds to be heard. The crural arteries pulsated violently; the inguinal glands were but little enlarged; there was irregular fever, up to 38.4° . The X-rays revealed almost normal contours of the bone, and only within the bone itself, in the lowermost portion of the shaft, was there a quite sharply defined shadow. A trial puncture withdrew about 300 cm. of fluid blood with numerous flocculi of fibrin. A culture remained sterile. The growth enlarged rapidly and it threatened to perforate. A diagnosis was really forced to be made. The reporter thought of a simple hæmatoma, possibly in communication with a large vein, an aneurysm, an atypical form of osteomyelitis and, above all, of sarcoma. Hæmophilia could be excluded. As to sarcoma the lower portion of the femur is a common site for sarcoma and, finally, the majority of those undefined hæmatomas associated with osseous changes usually turn out to be sarcomas. A trial incision was made January 13, 1904, opening a vast cavity, out of which gushed blood and clots; the blood had burrowed up between the muscles. The bone lay free in the space, with a cuneiform defect of the size of a walnut just above the epiphysis whose walls were lined with small, papillary excrescences. Sarcoma being diagnosed, the limb was amputated at the thigh which healed readily. On sawing the bone in two, no certainly sarcomatous places were detected, and it was only after microscopical examination of the covering of the walls of the bony defect and of certain deposits in the popliteal space that a diagnosis of mixed-celled sarcoma was to be made. Some of these hæmorrhagically degenerated sarcomas may pulsate and give rise to an error in diagnosis. These bone-aneurysms which were mentioned in the French medical literature of the last century usually turn out on careful examination to be hæmorrhagic sarcomas.—*Berliner Klinische Wochenschrift*, No. 11, 1904.

Frank H. Pritchard, M.D.

THE DIAGNOSIS AND TREATMENT OF SLEEPLESSNESS DUE TO A WEAK HEART.—Dr. L. Feilchenfeld, of Berlin, states that patients with a weakness of the heart muscle itself, but without valvular lesions, are liable to suffer from a form of insomnia which is characteristic and peculiar. The patient falls asleep quickly; his sleep is deep for one or two hours when he suddenly awakes, usually with an anxious and oppressed feeling, a sensation of compression of the chest and palpitation. Then he may roll for hours about the bed seeking sleep, which only comes towards morning. Well compensated valvular lesions do not cause this clinical picture. The weakness, as said, is of the heart-muscle itself and is generally characteristic of the early forms of the trouble. It is true of many chlorotics with slight enlargement of the heart and an increased pulse-rate. He has frequently treated this form of insomnia with heart tonics. Prof. Oppenheim several years ago described a similar form of insomnia where a patient, a woman, who had undergone a great deal of mental distress would awaken after half an hour, with serious asphyctic sign symptoms. Hysteria was diagnosed, yet the present writer would rather add to this as primary a slight disturbance of compensation.—*Berliner Klinische Wochenschrift*, No. 11, 1904.

Frank H. Pritchard, M.D.

A CASE OF ACUTE PRIMARY OSTEO-MYELITIS OF THE SACRUM.—Dr. E. Heiking, calling attention to the rarity of acute primary osteo-myelitis of the sacrum, for only five are known in the medical literature, adds a sixth, which differed from the others in recovering.

The patient was a boy of 14 who, three days after a fall on his back, was seized with chill, fever and general malaise. Typhoid was diagnosed, but Dr. Heiking being called differed in his view, for pressure over the sacrum gave rise to very acute pain; rectal examination revealed a hard and hemispherical tumor which pushed the rectum forward and over to the left, at the base of the coccyx. The base of this swelling, which was very painful to the touch, lay on the anterior face of the sacrum. Acute primary osteo-myelitis of the sacrum being diagnosed the abscess was opened through the greater sciatic notch and an abundance of thick, yellowish-green pus was evacuated which yielded pure cultures of *staphylococcus aureus*. The third day the temperature became normal, the chills did not recur and the general condition improved. For three weeks the wound suppurated profusely, while several particles of necrosed bone were noted, one as large as a pea. At the end of the third week when the suppuration had considerably decreased the little fellow was suddenly seized with high fever, an aggravation of his general condition and vague pains in the depths of the pelvis. A retention of pus being diagnosed a second incision was made, but no pus found, yet the fever fell, at the end of four or five days, and the patient entered on convalescence. Two months later he left the hospital with only a slight and superficial, cicatrizing wound. Six weeks later he fell ill again and was operated on for an acute osteo-myelitis of the upper extremity of the right humerus.

Passing in review the literature of vertebral osteo-myelitis he finds that the lower down in the column the lesion is situated the worse is the outlook: cervical and dorsal involvement give 42-50 per cent., lumbar 68 per cent. and sacral 84 per cent. As to diagnosis he insists on the necessity of examining by the rectum on account of the depth of the lesion and the vagueness of the symptomatology.

In operating he would open the abscess through the greater sciatic notch, for the greater technical difficulties of this route largely compensate by the better outlet for the pus, for one does not risk infecting the cellular tissue of the pelvis as in perineal incisions. As to trepanation of the sacrum he thinks it contraindicated, for it exposes the patient to considerable loss of blood, which is a serious inconvenience in septicæmic patients.—*La Semaine Medicale*, No. 21, 1904.

Frank H. Pritchard, M.D.

LOCAL ANÆSTHESIA IN EXTRACTION OF TEETH WITH A MIXTURE OF COCAINE AND ADRENALIN.—Dr. Laewen has made a thorough study of this subject. He recommends a 1-2-per-cent. solution of cocaine, to which 3 drops of adrenalin are added per ccm. of cocaine solution. One ccm. of this is injected. A sharp needle is thrust into the outer side of the gum just as it rises to bulge over the root of the tooth, and a few drops are injected close against the bone; the chief injection is made as deep as the root of the tooth under the alveolar periosteum. When about half a syringeful has been injected, the needle is withdrawn and thrust in about 5 mm. from the lingual margin of the gum obliquely down into the alveolus and down to the bone, and about 1 cm. injected. The remainder of the contents of the syringe is inserted beneath

the alveolar periosteum. If the gum be flabby and drawn back from the tooth, a few drops may be injected before and behind it into the gum. In the course of five minutes the gum is white and anæmic, and one may convince oneself with a probe that the gum and periosteum are anæsthetic. Now the tooth may be extracted without pain. It should be done quietly, avoiding violent lateral rocking movements. The surface of the gum need be anæsthetized only in nervous persons. Here, touching the gum with a 3-per-cent. solution of cocaine-adrenalin solution will suffice. Cocaine-adrenalin anæsthesia is superior to all other anæsthetic mixtures. Its usefulness consists in the greater extent of the anæsthesia in depth and breadth, in its longer duration, in the more intense tissue anæmia, and in the decrease of toxicity of the cocaine. The vaso-constricting property of adrenalin permits one to employ this mixture to a greater extent in operating on the teeth and alveoli.—*Archiv fuer Klinische Chirurgie*, Bd. 72, Hft. 2.

Frank H. Pritchard, M.D.

THE SYMPTOMATOLOGY OF THIRTY CASES OF DILATION OF THE ARCH OF THE AORTA, WITH SPECIAL REFERENCE TO RECENT STUDIES OF THIS SUBJECT.—DRS. U. FLORA AND G. GIGLIOLI observed, during the short period of one year, thirty cases of this form of aneurysm: twenty-seven were men and three women. Twenty followed laborious trades, as porters, masons, mechanics, peasants, gardeners, tanners, laundresses, housemaids; two were typesetters, eight owners or employees.

In eighteen syphilis was noted; in two malaria; in two lead-poisoning; in four alcoholism; and in five no remote cause could be detected. In seventeen sudden and extreme muscular effort was thought to have been the immediate cause; in thirteen the disease began subdolamente.

As initial symptoms, the patients complained of neuralgic pains, which were more of a radiating type when the aneurysm was left-sided (bilateral in two cases), and rarely if on the right side. In one case where the tumor developed more posteriorly and superiorly, the pain rather simulated that of a cervical Pott's disease, though at the necropsy neither a lesion of the bone nor periosteum was detected. In four cases there was a simple otalgia, in two a hemicrania, in three a neuralgia, simulating a tic douloureux of the face. An important characteristic of this neuralgia is its fixedness. In four cases there was initial dysphagia instead of pain; in one hiccup; in another a violent attack of asthma. As to laryngeal phenomena there were noted aphonia, which in one case preceded by a year and a half all the other symptoms.

The authors note that these patients sit with their bodies bent forward, which position is sometimes assumed during walking, while the head in general is flexed away from the affected side. In all cases of aneurysm of the left side of the chest there was paralysis of the left laryngeal, in two of right-sided aneurysm, of right laryngeal nerves. A retarded pulse was noted only six times; rather was there a difference in arterial pressure in the two radials; in some cases this difference was striking. The sphygmograph did not reveal a decided difference between the two sides. Pulsation in the supraclavicular fossa was quite frequently noted, as well as the presence of a venous net around the shoulder and the mammary region of the same side as the aneurysm. Without coexisting valvular defect, no hypertrophy of the left ventricle was found. According to the writers percussion will enable one to detect

even deep and small aneurysms. The sac, if it commence in the posterior portion of the arch, often is towards the right and downwards; if it proceed from the ascending portion, it usually points upwards and to the right.

On auscultation a gallop-murmur is heard, due to a meso-systolic sound. Dilatation towards the left, even if small, runs a serious and a rapid course. Necropsies showed a prevalence of sacciform aneurysms; only six out of the thirty were fusiform and cylindrical.

As to treatment, injections of gelatin were of no service; ice bags kept continually on the chest quieted the pain. The writers have studied three symptoms of aneurysm:

Rhythmic Nodding of the Head.—This sign was present in fourteen cases out of thirty; it only appears when the growth is large, it being more frequently observed when the aneurysm points on the left side of the chest, the movement being from left to right when the patient stands with head extended. This sign was not noted in arterio-sclerotics, but it was seen in two cases of aortic insufficiency; in two renal cases with high arterial tension; in two with exophthalmic goitre, with back-and-forth motions.

Laryngo-Tracheal Pulsation.—This symptom aids in the diagnosis of an aneurysm of the arch in general, though it may be useful in the diagnosis of its seat. It may be from left to right (Cardarelli), or from above downwards, from behind forwards, and only exceptionally from before backwards, where the growth is behind the trachea; and then there is simultaneously paralysis of the left laryngeal and, possibly, dysphagia. This symptom may be present in other conditions, as in arterio-sclerosis from elongation of the arch, in tuberculosis from hyperplasia of the peritracheal and peribronchial glands, in kidney diseases from high arterial tension, in exophthalmic goitre, in angio paresis of the arch and great vessels, in carcinoma of the œsophagus. In three cases of mediastinal tumors where this sign should have been present it was absent. It may also be observed in well persons, as also in cardiac palpitation accompanying overexertion.

Auscultation of the Trachea.—There is always a reinforcement of the sounds on listening over the trachea whenever there is laryngo-tracheal pulsation; at times one may hear a souffle if it lie over the aneurysmal sac. There is slight increase in sound in arterio-sclerotics, but not in tuberculous patients. It may be audible even in adults when the heart-sounds are either not heard at all, or at best but weak and as if far-off (best in children). The writers regard this symptom as of practical value in the diagnosis of latent aneurysms.

The fluoroscope they regard as of the first greatest service. The patient is placed either with the chest or the back towards the instrument, with the tube about 50 cm. away from the manubrium. The aneurysm, if present, is easily found by the clearness of its outline. It may be confounded with mediastinal tumors and simple atheromatosis of the aorta.—*La Nuova Rivista Clinico-Terapeutica*, No. 4, 1904.

Frank H. Pritchard, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

BROMIUM.—Perhaps, because of its unstable character, this remedy has not been used as often as it deserves; especially among practitioners who habitually use the lower potencies. Let me throw out a hint which will help over this very nicely, and so enable you to cure a lot of serious cases. The halogen compounds with arsenic are held in their chemical combinations very loosely, and the bromide of arsenic, when dissolved in water, quickly liberates enough bromine to discolor the solution. It thus furnishes a most effectual remedy in diphtheria and croup when bromine is indicated and you desire a fresh solution thereof. It will be necessary to remember that the remedy is a very powerful one. When bromine is needed in croup, the child is very restless and shows a desire to be carried about the room very *rapidly*. There is much rattling of mucus in larynx on coughing. It would be a mistake in such cases to prescribe antimonium tartaricum unless, in addition, there was nausea and somnolency. Neither would hepar be indicated unless *choking* was also present. The latter remedy is also lacking in symptoms pointing to the presence of a violent toxic poison in the blood. So says Dr. C. M. Boger, in *Homœopathic Recorder* for June.

THE UNOBSERVED PATHOLOGY OF ACUTE AND CHRONIC DISEASE.—Dr. M. Zopfie advances some interesting theories regarding the mysterious, unobserved pathology of the various diseases that, if they be true, show how necessary it is to consider the pathological state of the human system alongside of its symptomatic expressions. He traces the disturbing agents, which create those abnormal conditions commonly known as diseases, back to the blood itself. He thinks that disease is nothing more than an abnormal and pathological state of the blood. In some diseases, gout, inflammatory rheumatism, peritonitis, meningitis, scarlet fever, abscess and cystitis, he finds in the blood an inflammable poison or irritant which cannot be eliminated. This violently irritates nerves and cellular structures and devitalizes and destroys the blood itself. In other diseases he finds the blood thick, sluggish, dark and filled with morbid matter and poison. Here the blood suffers from sub-oxidation and deficient circulation, with internal congestions of organs, as the liver, spleen, stomach, kidneys and heart. All this is very interesting, as far as it goes, but where does its practical application come in? Perhaps, we may see a practical application in his statement that excessive carbonization of the

blood, either by food or strong drink, causes the blood to become either overheated or violently inflamed. The excess of carbon cannot be eliminated, and therefore acts as a violent irritant to many structures. The author sees, in the fact that city people eat more and drink more than those living in the country districts, the reason why diseases are more prevalent in urban localities. The impure water and impure air of the city favor suboxidation and auto-toxæmia. Taken together, such factors devitalize and depress the system, and so city people fall victims to the prevailing diseases. The question arises: How are we going to prevent it? The article, in its entirety, may be found in *Homœopathic Recorder*.

THE ATTRACTIVENESS OF MYSTICISM.—Since the beginning the medical man has been, to greater or less degree, susceptible to those things which smack of the mysterious or unusual. As an instance, may be mentioned the fact that should any ordinary drug be placed upon the market, with a mysterious hyphenated name, the profession will flock to it and declare that never before was drug so potent. Let the manufacturer simply suggest that, in its manufacture, something had happened that had never happened before, and that could not be divulged, many will believe; and great will be the praise bestowed. It would be interesting if one of the great firms of manufacturing druggists would write a candid treatise upon the topic: "What We Think of the Medical Profession." It would make rare reading, for gullible doctors.

THE FAILURE OF SERUM THERAPY IN PLAGUE.—According to a translation from the *Journal de Médecine de Paris*, made by T. C. Minor, M.D., for *Eclectic Medical Journal*, after a thorough trial of the much vaunted plague serum for a period of over five years, the official reports issued by the British government show that it has in no degree reduced the mortality statistics of that dread disease. On the contrary, the plague is more menacing now than it was in 1901. And this, despite the fact that the serum has been used everywhere, as a preventive. The serum has failed.

In the same journal may be found a strong protest from an eminent French writer, against the use of the antitoxins of hydrophobia and diphtheria. He claims, and shows his proofs, that the fatal cases of hydrophobia have doubled since the introduction of the Pasteur serum. And he also states that, since the introduction of the Behring serums, recopied by Roux, the mortality from diphtheria has also steadily increased. The full reports from various foreign sources are given in substantiation of these remarkable statements. We trust that there may have been some mistake in these reports and that the herculean efforts of the workers in serum therapy may not, after all, have been for naught. The anti-pneumococcic serum is also disappointing. Dr. J. H. Musser, after some considerable use of this serum, says: "I cannot see that it is of any special value."

DOES NARROWNESS OF VIEW PREVENT PROGRESS?—Dr. George M. Aylesworth, in *Eclectic Medical Gleaner*, thinks that it does; and, being a good eclectic, he believes also that physicians should adopt what is useful in therapeutics, from all sources and without prejudice. As this is the belief and practice of the eclectic profession, is it not strange that the allopathic school finds fault with them? The history of medicine from the beginning to the

present has been the history of sects and schools of therapeutics; differing in their beliefs and practices and disliking each other most cordially. And so it will be until the human family has evolved a little more. Still papers, such as the one just referred to which discusses the topic, "Internal Medication for Direct Remedial Effects," are distinctly useful because they make us think; and, incidentally, perhaps, broaden our outlook to some extent. The illustration which Dr. Aylesworth uses to picture the narrowness of the view in different schools of therapeutics is unique and interesting. He says that intestinal colic, which is practically irregular and violent contractions of the muscles of the bowels, is either perversion, due to excess or to defect, in the nervous energy generated in Auerbach's ganglia. Experience has shown us that those medicines which make directly for the correction of these two distinct conditions, are by far the most successful that can be used in the treatment of intestinal colics. Of course, the doctor does not include intestinal pains due to green apples and the like. Now the so-called "regular school" might select morphia for this colic, but he does not do more with such a drug than paralyze sensation, which is a function of the cerebro-spinal nervous-system. They do not reach the cause nor the location of the trouble. It is plain to every one that the action of morphia is akin to the action of chloroform administered during labor. Painful uterine contractions go on, but the patient does not know it, because the nerves of sensation are not permitted to perform their duty. The author does not think that such therapeutics ought to be mentioned as a type of what is best in the healing art. The homœopathic physician, on the other hand, might prescribe colocynth in a minute dose. This will be successful, providing there is a depressed nervous force, which the small dose of colocynth can gently stimulate until it is normal.

But should the condition be an excited or excessive nerve force, colocynth will probably fail. Then should the homœopathic physician choose a remedy like dioscorea, which suits the latter condition, he will probably administer it in potency and fail, because here a dose of five to thirty drops may be needed. The narrowness of the homœopath's view does not permit him to recognize the occasional need for large doses. (Don't you believe *that*, doctor.) On the other hand, the eclectic would give colocynth in homœopathic doses, and if that failed he would immediately try dioscorea in proper dosage. So that the author thinks the eclectic has a distinct advantage, because his view of these things is broader and less hampered by laws and rules.

At all events, either colocynth or dioscorea are remedies that act *directly*, while the treatment by morphia is anything but directly curative.

This is interesting, but after all the homœopathic physician might not prescribe either of these remedies; and, at all events, he would not bother himself about Auerbach's plexus to any extent. He knows a better way in which the truly curative remedy may be found. After all, it might be difficult to say just what condition that particular plexus might be in. The allopath does not stop to consider, but flies to his panacea for pain. The eclectic tries one thing after another, until he hits something that relieves or cures. The homœopath gets the truly indicated remedy by a sure and direct method of drug-selection; and—there you are.

CHOLELITHIASIS AND ITS TREATMENT.—After having tested the efficacy of a certain line of treatment in some fifty cases, Dr. John Hudson Storer speaks

right to the point in a concise article in *N. A. Journal*. He thinks that gall-stones are due primarily to disorder of the bile passages, and not to functional disorders of the liver. His treatment includes keeping the bowels regular and flushed with some saline water, and occasionally a dose of calomel and mandrake. He regards olive oil as an excellent solvent of gall-stones. He advises that the patient take oil in considerable quantity, then lying down upon the right side, with head low and hips elevated, the oil will gravitate through the common bile duct into the hepatic and cystic duct and even into the gall-bladder itself. His best results were obtained with wineglassful doses, four times daily. In addition to this he uses chelidonium and dioscorea in alternation. The tincture for one month; the first decimal for the next month; the second decimal for six months longer. Chelidonium, says Dr. Storer, is a hepatic irritant; hence in diluted doses it allays the irritation of the mucous membranes in the hepatic region and allows the catarrhal conditions to subside. Dioscorea causes cramp and colic; hence for our use it is an antispasmodic of the bile passages and allows a freer flow of bile. And who knows but that such may be the case. While a routine method of treatment is always of questionable utility, any line of treatment that has been uniformly successful in fifty cases of gall-stone disease is deserving of our careful consideration and further trial.

CROTALUS IN GANGRENE.—Dr. P. C. Majumdar, in *Indian Homœopathic Review*, gives us an excellent illustration of the really marvelous effect of highly attenuated medicines in serious conditions like senile gangrene. The patient was an elderly male and the gangrenous process threatened to destroy the entire right foot. The temperature was 104°. A general typhoid picture prevailed. Tongue dry and covered with sordes. Restlessness, delirium and stupor were marked. From the affected parts a thin, dirty-reddish discharge came away with much attendant fœtor. Rhus and lachesis failed to produce any visible change. *Crotalus H.*, 30, one dose night and morning, acted beneficially from the start, and within one month the case had recovered. Previous to beginning homœopathic medication, this patient had consumed large amounts of opium. Dr. Majumdar was able to reduce this materially, but does not tell us whether he found it possible to dispense altogether with the anodyne. This point, it seems to us, is an important one, as we never feel that it is best, in the interests of an exact therapeutics, to claim more for our attenuations than is rightfully their due. We also think that it is sometimes possible to obtain the curative effects from attenuated medicines, while the patient is at the same time enjoying the temporary palliative effect of an occasional dose of the suitable anodyne. Especially is this true of such serious and painful affections as gangrene. Such an admission does not lessen the dignity of our claims for the curative remedy, while the position which one occupies, after such an admission, is none the less tenable in the eyes of our colleagues.

THE TREATMENT OF PERTUSSIS.—Anyone who desires to feel happy that he is a homœopathic practitioner can easily experience that emotion by reading an old school article upon the treatment of pertussis. A multitude of drugs and expedients are offered, but when an author of Prof. Hare's ability declares that while drugs for pertussis are almost as numerous as members of the medical profession, and every one of them worthless so far as cure is concerned, it makes us rejoice that we can differ from this opinion. All cases of

pertussis are not cured with equal rapidity by homœopathic remedies, but so many cases yield so promptly and satisfactorily that one feels amply justified in saying that at least the charge of worthlessness does not apply to the carefully prescribed similimum.

TREATMENT OF PNEUMONIA.—Dr. Clapp, in discussing Dr. Hooker's paper upon this topic before the Boston Society, remarked, in a very quiet but convincing way, that he thought it must be very seldom indeed that anything outside of pure homœopathy is wise treatment. Occasionally he uses strychnine. Sometimes alcohol is called for, but the speaker does not call alcohol a departure, any more than a cold compress would be. Oxygen he believes has more the effect of pleasing the friends than of actually saving the life of a patient. The use of morphine and similar drugs, for the purpose of relieving pain or cough, Dr. Clapp thinks very dangerous. And he is seconded in such an opinion by many recent utterances of those in authority. He does not see as much difference between the school's treatment of pneumonia now, as might have been detected during Hahnemann's time; still he feels quite sure of the comparative superiority of the homœopathic method. Again this opinion can be substantiated by statistics. Altogether, we like Dr. Clapp's quiet assurance that while homœopathy may occasionally lack expedients suitable for extraordinary occasions, still her methods are unquestionably superior to any other methods in the vast majority of instances. That is what we need—men who are homœopathic in belief and homœopathic in practice—from simple conviction, proved by experience.

THE SUMMER VACATION.—We are glad that the editor of the *New England Medical Gazette* has called the attention of the medical profession to the necessity of rest and recreation. Physicians work very hard, they use up a vast amount of nervous energy during the long winter. If they would lengthen the average of life, which is now only fifty-four years among the medical profession, they must have each year a period of absolute rest, with change of scene and occupation. Another reason why physicians are short-lived is because they do not exercise enough in the right way. They are, it is true, out in the air much of their time, but riding in a carriage is not exercise; and driving an automobile is not exercise; it is nervous strain and nervous tension. The editor calls it a death-dealing agency. We think that if physicians walked more and rode less, their physical powers would be greater. Of course, walking is out of the question during our business days, but we all have days that are less full than other days, and upon these leisure occasions the doctor should drive "Shank's Mare." Then, again, the doctor should bowl, ride horseback and try to play golf. He should go to a gymnasium, run across country and take an occasional swim. It is not dignified? Oh, yes, it is. Quite as dignified as sitting in a club, and more beneficial to the physical system.

SOME OBSERVATIONS ON PNEUMONIA.—Quite in contrast with the pessimistic and hopeless attitude of some medical men towards pneumonia, Dr. Hooker, in *New England Medical Gazette*, shows a modest confidence in his ability to successfully handle this serious problem. He relies mainly upon the well-tested homœopathic remedies: Acon., gels., bry., phos., iodine, tartar emetic, iodide of antimony and sulphur. At the same time the author has

not neglected to admit that he does not undervalue those adjuvants which common sense teaches expedite the cure or promote the recovery. In ordinary cases, during the first week, he thinks that it is far wiser to give little food than it is to overtax the stomach. If signs of heart weakness appear he believes in alcohol rather than in strychnine. For sudden emergencies he admits the power of nitro-glycerin, properly administered. The reduction of high temperature by drugs he will not countenance, believing that the high temperature is really less injurious than such drugs. He admits the occasional occurrence of delirium, pain or excitement, which are of such a severe type that ordinary remedies do not control them. Then he feels that an appreciable dose of the proper sedative may be useful. Dr. Hooker very frankly says that he believes the day has passed, if it ever existed, when the physician's therapeutic armamentarium should consist merely of an accurate knowledge of the homœopathic materia medica; but he continues that he knows the day has not yet dawned, and never will dawn, when his armamentarium will be complete without such knowledge. It must not be supposed that such statements as this show that the man making them thinks lightly of homœopathy. On the contrary, this writer shows his full appreciation of the value of our method of drug-selection; yet he cannot admit the invariable demonstration of our law. The illustration which he used to explain his position is interesting. He says it has often been claimed that the homœopathic law is as invariable as the law of gravitation. Now, while it is true that bodies are equally attracted towards the earth's centre, irrespective of size and of composition, it is not true that the force is always exerted equally under ordinary conditions. A bullet and a feather do not reach the earth at the same time when allowed to fall from a height, because the resistance of the air impedes the fall of the feather. In a perfect vacuum they would fall with exactly the same velocity. So he thinks that while the homœopathic law is invariable in its tendency, the right conditions are necessary for its perfect demonstration. Of course, every homœopath recognizes that certain mechanical conditions occasionally interfere with the perfect working of the law; but often these may be overcome by mechanical treatment, and so they should be. After all, if we who believe in similia will only use all our energies towards the demonstration of the utility of that law *within* its own particular sphere of usefulness, which is wide enough for the present generation, we shall not need to worry much about the exceptions.

JUDGING BY RESULTS.—A physician was asked quite recently to explain the action of the therapeutic emanations from radium. He could not do this, but thought that notwithstanding the absence of any molecular, chemical, microscopical or spectroscopical changes in the radium, he was willing to accept the fact that it had a marked therapeutic action. He was willing to judge from results. The same man if asked to judge, in the same manner, of the therapeutic action of a homœopathic dilution, would say there was nothing in it that *could* act medicinally. He would probably advise us to "go back to the asylum." The homœopathic school only ask that their method of treatment shall be judged by its results at the bedside. "Results" just as convincing, to any sane mind, may be obtained from a bottle of aconite 6 as may be obtained from a bulb of radium, if one is simply looking for evidences of therapeutic action in those results. Some brains can only be illuminated by a trephine.

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PRINCIPLES OF DIETETICS.

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"DOCTOR, what shall I eat?" was the question recently addressed to a prominent New York physician during a visit to one of his regular patients.

"Eat," said he, "Why, eat victuals. What else would you eat?"

This perhaps expresses in a somewhat exaggerated way the attitude of the medical profession on the subject of diet in health as well as in disease, a state of mind doubtless due to the uncertainty of our knowledge of the chemistry and physiological action of foods which has prevailed until recently.

Fortunately, however, owing to the work in the past few years of such men as Munk, Hutchinson, Bunge, Van Noorden, Thompson, Pawlow, and others, our knowledge of the value and action of different foods when introduced into the human body is somewhat better understood. Yet by no means have all the difficulties of the subject been overcome, for any one who has had to do with feeding different people must recognize the influence of individual idiosyncrasies, and bear testimony to the truthfulness of the old adage, "What is one man's meat is another's poison."

Nor do I believe this idiosyncrasy entirely due to custom and habit in healthy persons. The best authorities on the subject of diet to-day are quite agreed that individual variations in metabolism are accountable for many of the peculiarities which we have been accustomed to look upon as habit, or, perhaps, fussiness.

Individual metabolism probably varies quite as much as individual coloring of eyes and hair, or of individual peculiarities of bodily structure. Cell metabolism is as yet but imperfectly understood, notwithstanding the numerous researches constantly going on, and consequently the application of materials to the repair of daily waste of body-cells is by no means an exact science.

Experience and experiment, however, have taught that in order to keep an individual in a healthy mental and physical condition his food must be capable of digestion and absorption, and :

1. That it yield enough potential energy to meet the daily waste in the form of heat and work,—this being furnished by the carbo-hydrates and the fats, as represented in cereals, starchy vegetables, oils, butter, cream, etc.

2. That it contain enough proteid material to replace tissue destruction,—this being furnished by meat, eggs, cheese, fish, etc.

These are the first essentials of a diet. Minor requisites, but of nearly equal importance, are :

- (a) That the food shall conform to individual tastes.

- (b) That the diet shall contain the *proper* proportion of carbo-hydrates, proteid and fat. In other words, the diet must be made up of mixed food, no *one* article of food containing these principles in proper proportion.

- (c) A sufficient bulk of food to create a certain amount of residue is necessary in order that the intestinal canal may not become disordered. With too small a quantity of residue, intestinal peristalsis is not sufficiently excited to eject the waste products of tissue decay, and auto-intoxication results. With too large an amount of food residue, intestinal irritation takes place, and diarrhœal diseases appear.

Now returning to the essential principles of a diet, physiologists are quite in accord as to the amount of potential energy

which a food must contain. Between 2500 and 3500 calories being required, depending largely upon the nature of the work which the individual must perform. The calorie is the standard of heat production, which means the amount of heat required to raise one kilo of water one degree centigrade. Work which calls for the expenditure of muscular energy requires a larger amount of food.

Rubner, in a series of careful estimates, has shown that the number of calories mentioned in the following table must be supplied each day in order to maintain the body in good condition of nutrition. Rubner's estimate is: For individuals of an average weight, say 150 pounds. 1. Rest (*e.g.*, clerk at a desk), 2500 calories. 2. Professional work (doctor), 2630 calories. 3. Moderate muscular work (house-painter), 3120 calories. 4. Severe muscular work (shoemaker), 3650 calories. 5. Hard labor (blacksmith), 5200 calories.

The calorie value of food necessary is influenced by the character of energy expended, by conditions of rest and activity, by the weight of individuals, by the age (during the growing period a larger proportion of food to weight being required, while in old age the total calorie value should be reduced), and by the sex—women requiring less than men.

According to this the average is about 3000 calories for the ordinary city dweller leading a moderately sedentary life. A part of this energy is supplied by the proteids which are required in the diet to replace the daily destruction of tissue. The balance must be obtained from carbo-hydrates or fats, the choice depending upon the digestive capacity and the purse of the individual—the carbo-hydrates being less expensive will naturally be chosen by the poor man. Again, the carbo-hydrates seem to be more efficient proteid spacers than the fats; that is, a small amount of proteid will repair a larger amount of tissue when combined with carbo-hydrate than it will when combined with fat. On the other hand, too large a proportion of carbo-hydrate is apt to overtax the assimilative function.

The second principal requirement of the healthy diet, the proteid, must be present in sufficient quantities to supply the daily waste of tissue. Unfortunately, physiologists are not in absolute accord as to the quantity required to do this; in fact,

the exact amount seems to vary greatly in individuals, this variation being probably due to the bulk of their muscular tissue, and to some extent (as referred to above) to the amount of carbo-hydrate contained in the diet.

The food of Asiatics rarely contains more than 50 grammes of proteid per day for an individual of average weight, but for the majority of people this is probably too small to maintain a healthy equilibrium. The standard laid down by some of the German physiologists of 125 grammes for the average individual is, on the other hand, probably too large an amount, unless muscular tissue is being rapidly broken down by hard work. It is therefore difficult to say definitely just how much proteid material it is necessary to use in order to maintain a proper equilibrium. The quantity, however, will vary somewhere between the amounts mentioned; that is, 50 to 125 grammes.

Habitual disregard of the above principles of proper feeding will eventually result in some form of bodily ill-health. If the error be on the side of excess—which is apt to be the case among the well-to-do classes—we find resulting such diseases as obesity, diabetes, glycosuria, dyspepsia—the whole list of so-called lithæmic or uric acid conditions, arterial and probably kidney degenerations. With this class there is a sore need for a popular food of large bulk, with a minimum of nourishment, something that will satisfy the appetite without over-feeding the tissues. Unfortunately, the modern tendency is all the other way. Manufacturers are constantly putting upon the market concentrated foods which are lauded for their nutritive value, and our patients who are growing weak from over-feeding are constantly tempted to add to their burdens by consuming more nutriment. I regret to say that in many instances medical advisers endorse these erroneous views. Nearly every layman seems to think that the more food he consumes the stronger he will be. This was recently illustrated by the statement of a gentleman in reference to his wife, who has a chronic and poorly compensated mitral lesion, and in consequence cannot take much muscular exercise. I saw her when she was passing but little urine, bowels inactive, feeling more than usually weak, unable to walk more than half a block because of dyspnœa. I remarked upon this increasing

weakness, and the husband said, "Doctor, no wonder she is weak, she eats practically nothing." Inquiry elicited the fact that she had gained ten pounds in weight during the summer, and that the daily diet was about as follows: breakfast, one large cup of cocoa prepared with milk and sugar, two slices of bread with butter, about 600 calories. At eleven o'clock, a glass of milk, 150 calories. Lunch, two chops, bread and butter, one vegetable, some fruit, two cups of tea, and several small sweet cakes, 800 or 900 calories. Dinner, soup, one meat, two vegetables, a glass of milk, some sweet dessert, about 1400 calories. At bedtime a glass of milk, 150 calories. Total, about 3100 calories for the day, with no muscular or mental exercise worth mentioning. Yet, her husband thought she was not eating enough to keep her strong.

A dose of castor oil, toast and tea for twenty-four hours, and a little more than half of the above amount of food for several days made her stronger than she had been before for weeks.

Upon the other hand, too small a quantity of food will lead to anæmia, functional nerve disorders, and a predisposition to all infectious diseases, especially tuberculosis.

When the proteid element in the food is habitually taken in excess of what is necessary to keep the tissue in repair, diseases of the so-called uric acid group are the most common, and these I firmly believe are sooner or later followed by arterial and renal degeneration.

A diet too poor in proteid produces a general feebleness of body and lowering of resistance to disease. A people habitually underfed in proteid, have little energy, accomplish little, and succumb readily to epidemic diseases.

So much for some of the principles which should govern the selection of foods in health.

Passing now for a moment to diet in disease, there are three fundamental principles which should not be lost sight of,—the first being the personal factor of the patient, and his previous habits. Most patients have their individual likes and dislikes, and the digestive organs in most instances have formed a habit of digesting particular foods. If one is to be successful, this personal factor cannot be safely disregarded. It is always best to first learn what a patient's previous dietetic habits have been before laying down any hard and fast rules. It is always better

to humor these fancies unless the physician has excellent reasons for not doing so. The second principle is,—not to forget the dependence of one organ upon all the others. A common error in dietetic treatment is to prescribe that form of food which is particularly adapted to one diseased organ, and in so doing starve all the others, thus making the patient's last condition worse than the first. The third principle is,—never to make any radical changes in diet suddenly. Pawlow has conclusively shown that the digestive organs accustom themselves to certain foods. Any sudden change will consequently throw an extra strain upon the organs, thereby causing the general nutrition to suffer, and permitting the disease, whatever it may be, to take a firmer hold upon the system.

We must also not fail to remember that there are comparatively few diseased conditions which are amenable to dietetic treatment. In the majority of instances, if one is to obtain the best results, it is impossible to say just what a patient shall eat or drink, or just what to avoid. The physician who attempts to do this in all cases will fail more often than succeed. There are, however, three general diseased conditions in which dietetic treatment is most essential. These are:

1. Diseases of the organs which prepare and elaborate food (stomach, intestines, liver, etc.).
2. Diseases of metabolism, in which there is a perversion of the usual methods of dealing with the nutritive material by the cells (fevers, obesity, gout, diabetes, rickets, etc.).
3. Diseases of the excretory organs, which remove from the body the waste products of tissue change (especially the kidneys).

In the first group, diseases of the digestive organs, and more especially the stomach, it is necessary to distinguish between the so-called organic affections, such as ulcer, cancer, catarrh, and dilatation, and the functional group of motor, secretory, and sensory neurosis. The former requires a careful selection of easily digested food, containing the proper proportion of proteid, carbo-hydrates and fats. The foods must disintegrate readily, contain little vegetable cellulose or animal connective tissue, and offer little resistance to rapid passage into the intestine. In the functional group, one food will usually be found to agree as well as another, and it is best to disregard

the patient's sensations and force the nutrition; following the principle that it is better to disregard one organ for the general good of all the others.

In intestinal disorders, the diet assumes great importance. In diarrhoeal conditions such food must be selected as will have as little unabsorbable residue as possible, such as cereals and gruels, while fruits are most deleterious. In constipation, the vegetables and fruits, because of their unabsorbable residue, act most beneficially.

In the second group, that of metabolic disease, it has been the custom in fevers, for some years back, to feed to the limit of the digestive capacity. I have recently noticed a slight reactionary tendency against this plan. In one hospital in New York it has been the custom for the past year to feed typhoid patients almost exclusively on water during the height of the fever. Personally, I think that either extreme is bad, and that the best results can be obtained by consulting the individuality of the patient. Certain it is that the old rule of feeding typhoid fever patients indiscriminately upon a milk diet does not produce the most satisfactory results. Time and again in these cases I have seen the tensely distended abdomen become soft and flat, the high temperature fall, delirium disappear, and the tongue become moist upon substituting broth, thin cereal gruel, or egg albumen for milk. On the other hand, where tympanites is not great, and constipation not marked, milk in some form or other gives the best results. It is also well to remember in fevers that the carbo-hydrates are the most efficient "proteid spacers," and that their end-products, unlike the end-products of proteids, do not increase the waste matter in the already overcharged blood.

In diabetes there is probably more unanimity in regard to diet than in any other one disease. The general consensus of opinion here is to restrict the carbo-hydrates. It is well to remember, however, and especially in diabetes, that the patient's nutrition must not be allowed to suffer in the attempt to remove a single symptom. This is best guarded against by the free use of fat, which seems to be the one article of diet which is harmless in this condition. Recently, the use of potatoes has been advocated in the place of bread in this disease, and in two cases which I have treated on this plan I have found that they

could take nearly twice as much carbo-hydrate in the form of potato as they could in the form of bread, without the appearance of sugar in the urine. This, I think, is a step in advance, and offers a better chance of maintaining the body nutrition than we have heretofore had.

In gout there is a great diversity of opinion in regard to the proper diet. The idea is becoming more and more prevalent, as our knowledge of chemical pathology advances, that the old uric acid theories of gout are erroneous, and that the disease is probably due to an intestinal auto-intoxication. More than one substance is probably accountable for the condition known as lithæmia, or gout. The most recent diet theory is that the foods rich in nucleins are the most harmful, such as kidney, liver, thymus, pancreas, brain, peas, beans, lentils, oatmeal, and asparagus. This, however, does not seem to entirely reach the condition, and to achieve the best results it is certainly necessary to limit proteid absorption. This is often best accomplished, not by limiting the amount of proteid in the diet, but by using sparingly the "proteid sparsers," or carbo-hydrates. However, I believe the best results will be achieved when we succeed in limiting the production of intestinal toxins.

In obesity the problem of diet is often a difficult one, for certainly there are few fat people who do not habitually over-eat or over-drink. In the majority of cases a restriction of the total amount of food taken and the prohibition of alcohol will be quite sufficient.

In our third class,—that of renal diseases,—it is necessary to carefully distinguish between the acute and chronic conditions. In the acute condition milk is, by common consent, the most acceptable food. In chronic nephritis the case is different. Here the general bodily nutrition has to be considered quite as much, or more, than the kidneys, and in order to provide for the general nutrition the different food principles must be used in their proper proportions. Then, too, in chronic nephritis the principal attention must be given to the heart, for, if the myocardium fails, the urine soon becomes scanty, and a condition of uræmia rapidly develops. To properly nourish the heart, meat must be included in the diet. It is necessary, however, to avoid meat extractives, which have been found especially irritating to the kidneys. Therefore, we would rigorously

exclude all meat extracts and soups. Van Noorden has recently shown that red meats contain no more extractives than white, and are therefore no more harmful in nephritis. This fact permits more latitude in feeding than we have previously thought safe. It is well known, however, that a meat diet increases arterial pressure. Therefore, it is necessary to avoid excess in this food; otherwise, in attempting to create an hypertrophied heart to overcome a contracting kidney, we may suddenly be confronted with an apoplexy. It often requires careful steering to avoid the rocks upon both sides. A common fallacy in the treatment of chronic nephritis is to give the patients large quantities of fluids, especially water, with the idea of flushing the kidneys. This is probably one of the most common, as well as the greatest, of errors in treating this condition. When one stops to think that in chronic nephritis the arterial pressure is always increased by the disease, it is readily seen why an increase of fluid in the bloodvessels is to be avoided, if possible. I believe many cases have been forced to an untimely end by being urged to drink large quantities of water.

DISEASES OF THE STOMACH AND DUODENUM REQUIRING SURGICAL INTERFERENCE.

BY THEODORE L. CHASE, M.D., PHILADELPHIA.

(Read at the Annual Meeting of the Practitioners' Association, Reading, Pa., July 20, 1904.)

AMONG the more recent developments in abdominal surgery there are none more important, within the scope of the general practitioner, than diseases of the stomach and duodenum. Within the radius of a circle four inches in diameter, occupying a position slightly to the right of the median line in the epigastric region, we have an area that covers lesions of both these organs.

In considering the ætiological factors productive of inflammatory conditions, we will recall a few important points relative to these organs. We remember that the stomach occupies a nearly vertical position in its upper part, with the pylorus in the median line of the epigastric region. As the greater curv-

ature is followed around to the right, we find the pylorus slightly elevated above the lowest point of the gastric cavity, where it turns upward sufficiently to prevent the stomach contents from bearing directly upon the pyloric orifice. In palpating the pylorus of the stomach we expect to find it in the median line about three inches below the ensiform cartilage.

When food has been properly masticated in the mouth before swallowing, it becomes well macerated and mixed with the juices from the salivary glands, whereby a very important part of the digestive process is accomplished, and the food enters the stomach in a condition favorable to the action of the solutions of pepsin and hydrochloric acid thrown out by the gastric glands. Further maceration of the food is performed by the muscular contractions producing a churning motion; such contractions, assisted by gravity, pass the food toward the pyloric orifice. In cases where there has been failure to carry out perfect mastication by the teeth, we have one of the principal causes of gastric ulcer. Food products entering the stomach in an imperfectly masticated condition cause defective secretion and constant irritation; eventually producing the various phases of stomach ulceration. This in turn, by the prolonged irritation of chronic ulceration, favors the ultimate development of carcinoma.

The portion of the duodenum subjected to inflammatory diseases is limited to the first four inches of the organ, taking in that portion between the pylorus and the opening of the common bile duct. Mayo has appropriately termed this region the "vestibule of the small intestine."

When gastric digestion becomes abnormal, and there is hyperacidity of the secretions, the improperly digested food, containing its high degree of acidity, is passed into the duodenum, subjecting this organ to the constant irritating effects of the excessively acid contents upon its mucosa. The remaining portion of the duodenum is not exposed to the acidity coming from the gastric secretion, owing to the alkalinity of the fluids secreted by the pancreas and liver.

The round, perforating, or simple ulcer is usually single, occurring in the stomach and in the duodenum as far as the papilla bilioria. It follows nutritional disturbances and is characterized

by a more or less deep, circumscribed loss of substance of the gastric mucosa, due to the gradual destruction of this region by the gastric juice. The condition was first described by Cruveilhier in 1829.

According to the statistics of Brinton and W. H. Welch, ulcer of the stomach (open or cicatrized) is found in about 5 per cent. of persons dying from all causes. It occurs more frequently in the female than in the male; the proportion being about two to one. The disease is more prevalent in some countries than in others; also occurring more frequently in certain parts of a country. Some authors maintain that the relative immunity of the inhabitants of certain territories is largely due to the fact that the diet is almost exclusively restricted to vegetables. As this diet is very rich in potassium salts, and as the red blood cells are the principal carriers of potassium it is supposed that the vegetable diet acts as a prophylactic measure in the prevention of ulcer.

In females the majority of cases of ulcer of the stomach occur between the ages of 20 and 30; in males, between 30 and 40; although it is not rare in children. The mortality-rate is highest between the ages of 40 and 60. In occasional cases it has been attributed to heredity. Those whose occupation requires a stooping posture, producing pressure on the stomach, are said to be particularly prone to the disease. However, there are three factors of prime importance in the obscure ætiology of gastric and duodenal ulcers: anæmia, hyperchlorhydria and traumatism. Of these, anæmia with associated menstrual disorders is the characteristic, predisposing element in women. Hyperchlorhydria is usually present at some time in the history of peptic ulcers, and in most cases it exists during the entire course of the disease. This is demonstrated by the frequency of duodenal ulcers of the peptic variety above the opening of the common duct, with its alkaline discharges, and the occurrence of secondary peptic ulcer in the jejunum at or near the opening made by gastro-enterostomy for drainage of gastric ulcer. Traumatism is another important factor, as illustrated by the location of 75 per cent. of gastric ulcers in the grinding apparatus in the pyloric portion of the stomach, despite the fact that this area contains only about one-sixth of the exposed mucous membrane.

Less common than the gastric ulcer, the duodenal ulcer occurs in the first two and one-half inches of the intestine, and is essentially a disease of adult males. The typical duodenal ulcer is round or oval in shape, extending to various depths in the intestinal wall. It most frequently occupies a position just outside the ring, in the first part of the intestine. It is more liable to perforation than gastric ulcer. Osler states that in a majority of cases adhesions form between the stomach and duodenum and adjacent organs, particularly the pancreas, left lobe of the liver and omentum. On the anterior surface of the stomach, adhesions are rarely encountered; hence the great danger of the ulcer in this situation, which more readily perforates and excites a diffuse and fatal peritonitis. On the posterior wall the ulcer penetrates directly into the lesser peritoneal cavity, in which case it may produce an air-containing abscess with the symptoms of the condition known as subphrenic pyo-pneumothorax. In rare instances there occur adhesions and a gastro-cutaneous fistula, usually in the umbilical region. Fistulous communication with the colon may also occur, or a gastro-duodenal fistula. The pericardium may be perforated; also the pleura. General emphysema of the subcutaneous tissues occasionally follows perforation of a gastric ulcer.

Erosions of bloodvessels may take place in the acutely formed ulcer or in the ulceration which arises at the base of the chronic form; it is in the latter condition that the bleeding is most common. Ulcers on the posterior wall may erode the splenic artery; but more frequently the bleeding is from the artery of the lesser curve. In the case of duodenal ulcer the pancreaticoduodenal artery may be eroded, or fatal hæmorrhage may result from the opening of the hepatic artery, or more rarely the portal vein. Embolism of the artery supplying the ulcerated region has been met with in several cases; in others, diffuse endarteritis has been noted.

Dyspepsia may be a more or less prominent symptom. In many instances nausea and vomiting occur, the vomiting usually coming on about two hours after eating. Hæmorrhage occurs in 50 per cent. of cases, and, when frequent, hastens the anæmia and cachexia which are characteristic of the disease. The ejected blood may show evidences of having remained in

the stomach a considerable time, or may appear bright red and unaltered. The blood may be passed in the stools; but this is more characteristic of duodenal ulcer.

Of all the symptoms, pain is the most constant and characteristic, being variable in character; it may be gnawing, or burning, and usually occurs in acute paroxysms of intense gastralgia. It often attacks the patient within a few minutes after eating; though it may come on when the stomach is empty, being referred to either the epigastric or dorsal regions. The intervals of freedom from pain may be of long or short duration. The seat of pain is usually in the median line of the epigastrium below the ensiform cartilage, and includes a circular area varying from a mere spot to three or more inches in diameter. The dorsal pain was first described by Cruveilhier. It is gnawing in character, and is generally felt to the left of the spine, at the eighth or ninth dorsal vertebra, occasionally extending to the first or second lumbar vertebra. The attacks of dorsal pain usually alternate with those of the epigastric region. Tenderness upon pressure is a common symptom, and manipulation should be delicately made, in order to prevent possible rupture of the ulcer.

Perforation occurs more frequently in women than in men, and the symptoms are identical with those of perforative peritonitis. Welch has mentioned the diversity of gastric ulcer, and the following are cited as the most important varieties:

1. Latent ulcers, with entire absence of symptoms, and revealed as open ulcers or as cicatrices at autopsy.

2. Acute, perforating ulcers. With or without a period of brief gastric disturbance, perforation occurs and causes speedy death.

3. Acute hæmorrhagic form of gastric ulcer. After a latent or a brief course of the ulcer, profuse gastrorrhagia occurs, which may terminate fatally or may be followed by the symptoms of chronic ulcer.

4. Gastralgic-dyspeptic form. In this, which is the most common form of gastric ulcer, gastralgia, dyspepsia, and vomiting are the symptoms. Sometimes one predominates over the others, so that Lebert distinguishes separately a gastralgic, a dyspeptic and a vomiting variety. Gastralgia is the most frequent symptom.

5. Chronic, hæmorrhagic form. Gastrorrhagia is a marked symptom, and occurs usually in combination with the symptoms just mentioned.

6. Cachectic form. This usually corresponds only to the final stage of one of the preceding forms, but the cachexia may develop so rapidly, and become so marked, that the course of the disease closely resembles that of gastric cancer.

7. Recurrent form. In this, the symptoms of gastric ulcer disappear, and then follow intervals, often of considerable duration in which there is apparent cure, but the symptoms return, especially after some indiscretion in the mode of living. This intermittent course may continue for many years. In these cases it is probable either that fresh ulcers form, or that the cicatrix of an old ulcer becomes ulcerated.

8. Stenotic form. By the formation of cicatricial tissue in and around the ulcer, the pyloric orifice becomes obstructed and the symptoms of dilatation of the stomach develop. To this may be added the form in which cancer develops. The course of the disease may be very protracted, sometimes extending over a period of twenty years or more.

The diagnosis is not usually difficult, as the history generally includes a combination of all or several of the characteristic symptoms. Gastralgia, alone, is not a distinctive symptom, since it is so frequently associated with nervous dyspepsia; but when occurring in conjunction with hæmatemesis it is quite characteristic. The pain of gastric ulcer usually occurs after the ingestion of food, particularly the coarser varieties; while, in duodenal ulcer, pain often occurs when the stomach is empty; this is demonstrated by the fact that so many patients complain of the occurrence of gastralgic attacks at night. Occasionally, the pain in ulcer is relieved by partaking of food.

Sensitiveness which becomes aggravated by pressure over a circumscribed area in the epigastrium, hyperacidity and hypersecretion are all suggestive of gastric ulcer.

The prognosis is unfavorable in the acute cases, relative to the complications which may arise, and guarded in the chronic forms, owing to the frequent relapses.

Carcinoma.—Of all the organs of the body (including males and females), the stomach is the one most frequently affected with cancer. In females carcinoma of this organ is second only

to the uterus in the order of frequency. Statistics indicate that cancer of all organs is steadily increasing. Cancer of the stomach comprises about one-fourth of all cases; the maximum liability lies between the fortieth and sixtieth years.

Among the causes productive of cancer of the stomach, mechanical injury, chronic gastric ulcers, the excessive consumption of alcoholic liquors, sour wines, etc., and prolonged periods of mental anxiety have been mentioned as predisposing factors. The exact number of cases directly attributed to heredity is rather small, considering the popularity of this theory. Few cases give a history of chronic dyspepsia, gastritis most frequently developing as a late accompaniment to the disease. Mayo states that 70 per cent. of all gastric carcinomata involve the pyloric portion of the stomach, having their origin at the pylorus, or within three inches of it. Brinton has explained the frequency of cancer of the cardia and pylorus as follows: The muscular fibres of these two orifices are subjected to more contraction than the rest of the stomach, the connective tissue in them being subjected to both contraction and distention; thus a more active nutrition of these parts is maintained, predisposing to proliferation of the glandular tissue with the ultimate formation of a neoplasm. The ætiology of cancer of the stomach will doubtless remain limited to theories, until the precise origin of this malignant epithelial growth in other organs becomes positively identified.

The varieties of gastric cancer generally observed are the cylindrical-celled adeno-carcinoma and the encephaloid or medullary carcinoma, followed by scirrhus, and then colloid cancer in the order of their frequency. As to the situation of the tumor, according to Welch, the distribution is as follows: Of 1300 cases 791 were confined to the pyloric region, 148 to the lesser curvature, 104 to the cardia, 68 to the posterior wall, 61 involved the major portion of the stomach, 45 were cases of multiple tumors, 34 were situated in the greater curvature, 30 in the anterior wall, and 19 in the fundus.

The medullary cancer is soft and involves all the coats of the stomach, exhibiting ulcerative changes early. The tumor may form villous projections or cauliflower-like outgrowths. It is grayish-white in color and contains much blood. Microscopically, it shows a scanty stroma enclosing alveoli, which contain

irregular polyhedral and cylindrical cells. The cylindrical-celled epithelioma also forms irregular masses; but the consistence is usually firmer, particularly at the edges of the cancerous ulcers. The section shows elongated tubular spaces filled with columnar epithelium, with intervening stroma in abundance. Cysts are not uncommon in this form. The scirrhous variety is characterized by great hardness, due to the amount of stroma, and the limited number of alveolar structures. It is most frequently seen at the pylorus, where it is a common cause of stenosis. It may be combined with the medullary form, or diffuse, involving all parts of the organ, and leading to a condition which cannot be microscopically recognized from cirrhosis. This form has also been observed in the stomach secondary to cancer of the ovaries. The colloid cancer is peculiar in its widespread invasion of all the coats. It also spreads with greater frequency to the neighboring parts, and it occasionally causes extensive, secondary growths of the same nature in other organs. The appearance on section is very distinctive; even with the naked eye large alveoli can be seen filled with the transparent colloid material. Ulceration is not constantly present, and there are instances in which, with most extensive disease, digestion has been but little impaired. (There is a specimen in the Warren Museum at the Harvard Medical School, of the most widespread colloid cancer, in which the stomach contained, after death, large pieces of undigested beefsteak.)*

Waldeyer's investigations first demonstrated that the cancerous affection is developed from the glandular elements of the mucous membrane, the main process being an atypical glandular proliferation. The neoplasm thus takes its origin from the mucosa. From there it penetrates the submucosa, forming here a more or less large deposit. Frequently, the larger part of the growth is situated beneath the mucosa. Finally, this malignant infiltration may attack the muscularis, and extend to the peritoneum. The spread of the infiltration, as a rule, takes place along the connective tissue fibres. The neoplasm, after having reached a certain degree of development may partly slough, giving rise to irregular, ulcerated areas. Of the vari-

* Osler.

ous forms of cancer of the stomach, the scirrhus type is the one most frequently observed.

Cancer of the stomach is also, though rarely, secondary to cancer in some organ more or less remote from the epigastric region. Cancer at the cardia is usually associated with emaciation of the organ and consequent reduction in its size; while cancer of the pylorus produces stenosis with great dilatation, though rarely the pylorus has been extremely contracted, without an accompanying increase in the size of the stomach. In diffuse scirrhus cancer, the stomach is greatly thickened and contracted; while the size and weight of the tumor, particularly when situated at the pyloric portion, may distort and displace the stomach, occasionally dragging it down into the pelvis. Inflammatory adhesions to adjacent viscera are also productive of distortion and contraction of the organ.

Cancerous deposits in other organs are of frequent occurrence. Of 437 cases collected by Brinton, this complication was observed in 219, or 48 per cent., the medullary and colloid types predominating in the cases of secondary involvement; the liver being pre-eminently the organ subjected to secondary cancerous deposits. Occasionally, deposits are found in the peritoneum, pancreas, kidneys, intestines, and lungs. The metastatic infection is usually conveyed by the blood-current and lymph vessels; though a continuous extension of the malignant growth to an adjacent organ may occur. Thus, a pyloric cancer may extend to the liver or gall-bladder, or a cancer located in the greater curvature may infect the colon. Welch's statistics, including 1574 cases, show metastasis occurring in the lymphatic glands in 551 cases; in the liver in 475 cases; in the peritoneum, omentum and intestine in 357 cases; in the pancreas in 122; in the pleura and lungs in 98; in the spleen in 26; in the brain and meninges in 9; in other parts in 92.

The abdominal lymph glands are the ones usually affected, though the cervical and inguinal glands are occasionally attacked. Secondary metastatic growths appear in the vicinity of the navel, under the skin. Perforation is not a rare occurrence, due to the extensive ulceration.

Progressive emaciation, with a consequent loss in strength, is one of the most frequent symptoms of the disease. Anæmia and anorexia develop in due time. Pain is the most constant

of all symptoms, though it sometimes occurs without reference to the site of the lesion. The pain is of a lancinating character, occurs early in the disease, and assumes a progressively marked severity, varying in the degree of intensity, but never entirely disappearing. The pain is not influenced to any extent by the presence of food in the stomach; it is described by some patients as dull, gnawing, or burning in character, associated with a sense of weight, oppression, contraction or distention in the epigastric region; pressure elicits a sensation of soreness. Exacerbations of pain are marked, when ulcerative processes appear, or when inflammatory adhesions form to adjacent organs.

Vomiting is a common symptom, though the location of the cancer largely determines the frequency of this symptom; the attacks are repeated much oftener in cases where the lesion involves either the pylorus or the cardia. Like pain, the vomiting is not dependent upon the ingestion of food. Sometimes, after an ejection, very slight change will be observed in the food, even though it has remained in the stomach a number of hours. Early in the disease the attacks are separated by long intervals of quiescence, but, as the growth progresses, the attacks gradually gain in frequency.

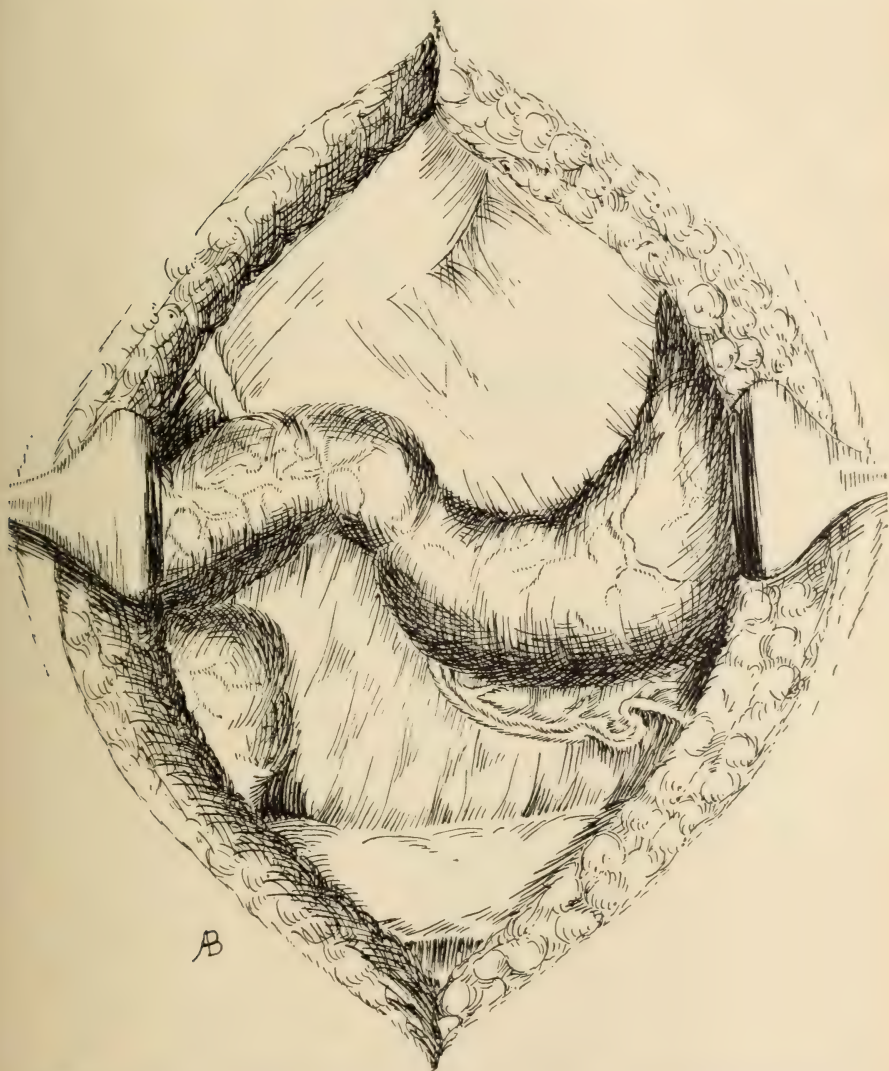
Hæmorrhage from the stomach is present in about 40 per cent. of cases. Usually, the bleeding is slight; the blood being of a dark brown or black color, and mixed with the gastric juice, food and mucus. Rarely is the blood of a bright red color. As a rule, the hæmorrhage arises from the minute vessels of the sub-mucosa or from the capillaries contained in the superficial layer of the mucosa covering the neoplasm. Fever usually appears in the late stages of the disease and is invariably a sign of ill-omen. The fever is due either to an inflammatory process in the vicinity of the lesion, or to the absorption of toxic material from ulcerated areas. The comatose condition which is occasionally seen, especially in the last stages of the disease, is also due to the toxæmia.

Constipation is the rule in most cases of gastric cancer; though in some instances a condition of alternate constipation and diarrhœa exists, due to a catarrhal condition of the intestines, produced by irritation of decomposed products. Frequently, sloughing of the neoplasm is accompanied by diarrhœa;

this is an extremely dangerous symptom, often terminating in death.

Cachexia is an important symptom, occurring in the large

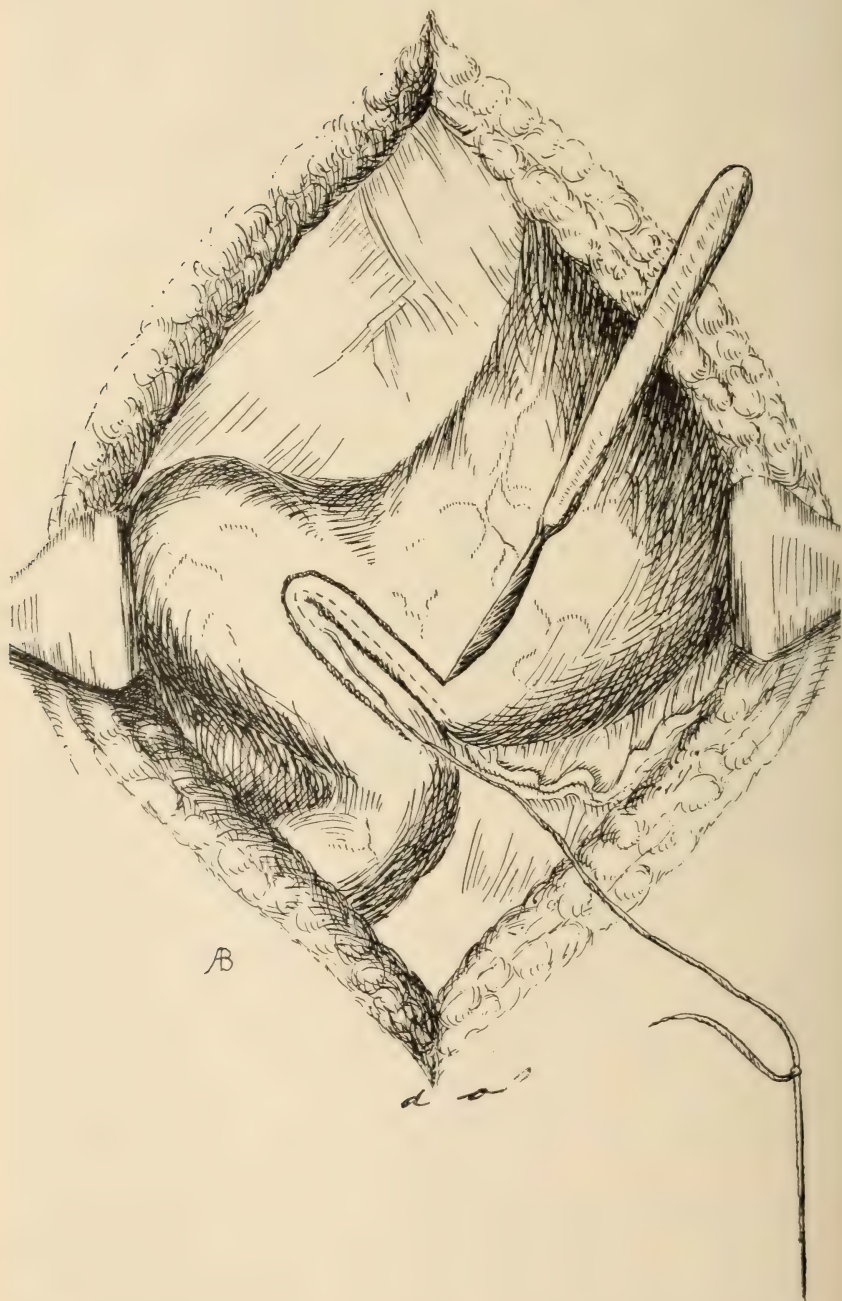
FIG. 1.



Showing the relationship of the pylorus with the stomach and duodenum through the cœliotomy incision.

majority of cases of gastric cancer. (Edema may be present as an occasional symptom. Schneyer has stated that the usual increase in the number of leucocytes, which is found normally

FIG. 2.



Illustrates method of bringing the stomach and duodenum together, preparatory to first introduction of suture, and incision.

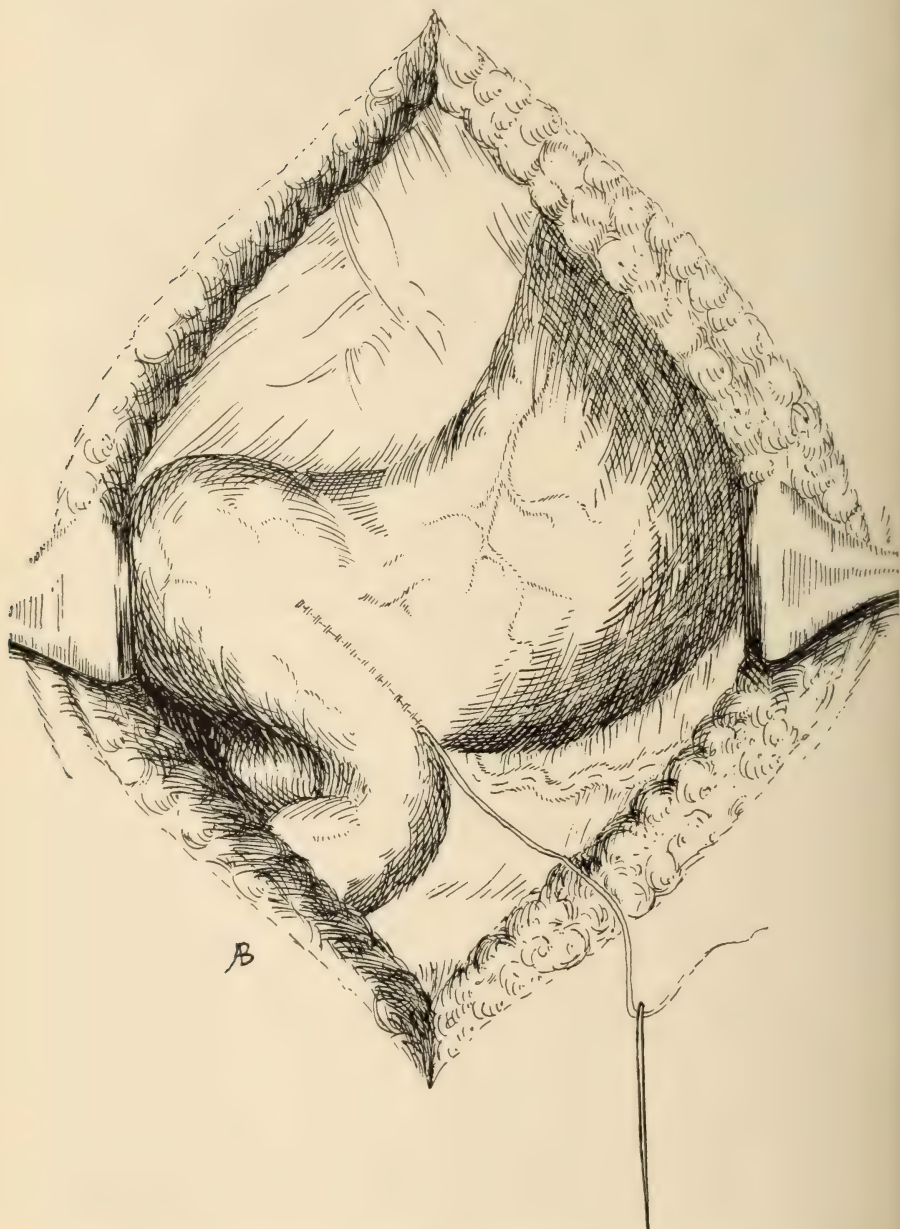
during the period of gastric digestion, is absent in all cases of gastric cancer—that is, the number of leucocytes during fasting and at the height of gastric digestion remains the same. Urinary changes may or may not be present.

The physical examination may reveal fulness in the epigastric region, inequality in the infra-costal grooves, the presence of peristalsis, a wide area of aortic pulsation, the existence of subcutaneous nodules about the navel, and lastly a tumor; these together or singly may be seen on careful inspection. In 62 of the 150 cases reported by Osler a positive tumor could be seen. In 52 of this number the tumor descended with inspiration; in 36 peristalsis was visible; in 3 cases movements were visible in the tumor itself. In 10 cases with visible peristalsis no tumor was seen, but could be felt by palpation. Inflation with air may be tried, except when hæmorrhage has been profuse, or the cancer is very extensive. The dilatation often renders the peristalsis perceptible, or may bring a tumor into view. The presence of subcutaneous nodules in the umbilical region excites the suspicion of malignancy. In 115 cases a tumor was found: 48 in the epigastric region; 25 in the umbilical, 18 in the left hypochondriac region, while in 7 cases a mass descended with effort of deep inspiration. These figures illustrate in how large a proportion of cases the tumor is in evidence.

Mobility of the tumor is a point of much importance. Tumors of the pylorus are the most movable, and in extreme cases can be displaced to either hypochondrium or pushed far down below the navel. Pain on palpation is common; the mass is usually hard, sometimes nodular. At times, gas can be felt gurgling through the tumor at the pyloric region. The percussion note over the tumor is found to be of a flat tympanic character. Auscultation may reveal the gurgling sounds through the pylorus.

Practically, the chief diagnostic difficulty lies in the cases which present gastric symptoms or anæmia, or both, without the evidence of a tumor. In chronic gastritis the history of long-standing dyspepsia, the absence of cachexia, the absence of lactic acid in the test meal, and the less striking blood changes are the important points for consideration. The cases with grave anæmia without tumor offer the greatest difficulty. The

FIG. 3.



Shows completed operation resulting in enlargement of the pyloric orifice.

chemical examination of the test meal has been proven by Mayo to be of less significance than was accorded it by for-

mer authorities. The present conclusions are—that high value of acidity points to ulcer and low value to cancer.

The prognosis, in malignant diseases of the stomach and duodenum, is unfavorable, except in cases having the benefit of early operation. The duration of the disease depends, in some respects, upon the situation of the neoplasm, which causes more disturbances and more rapid death when occupying and occluding the cardiac or pyloric orifices. The character of the growth is a factor in prognosis; for instance, the medullary form develops very rapidly. The complications which arise, either from ulceration, hæmorrhage, or from cancerous metastasis, influence the case unfavorably.

The treatment of these diseases has, until quite recently, been confined to careful dieting and prescribing of internal medicines. These methods have signally failed to establish permanent cures. The majority of cases are chronic in character, running a protracted course, during which the patient passes through dangerous crises, wherein life may be sacrificed by the numerous, intercurrent complications which often arise.

By early operative interference we can permanently relieve these patients, by removing the irritation, when the ulcers rapidly heal, and subsequent relapses will not follow. In the minority of cases the symptoms will not be sufficiently pronounced to make a positive diagnosis, as there are some cases wherein pain and tenderness over the epigastrium are the only indications, unless rigid examination of the fæces is carried out when blood may be detected. In these obscure cases the diagnosis rests between stomach or duodenal ulcer, and gall-bladder or pancreatic disease. When such is the case there is only one course to pursue—namely, exploratory incision through the upper portion of the right rectus muscle, one inch to the right of the median line. This incision will bring into view the stomach, duodenum, gall-bladder, or pancreas, when proper surgical procedures can be carried out.

If the ulcers are near the pylorus, either in the stomach or duodenum, Finney's operation (Figs. 1, 2 and 3), by enlarging the pylorus, prevents further irritation of the ulcerated areas, and a permanent cure will be accomplished.

When ulceration occurs in other portions than the pyloric orifice, other measures are found necessary to remove the irri-

tation of the affected areas. In many of these cases the stomach is not properly emptied; relief will not follow, unless complete drainage of the stomach contents is secured, in conjunction with the removal of the source of irritation. The most successful means of obtaining relief is by the performance of gastro-enterostomy, wherein the jejunum is attached to the lower border of the stomach.

The successful treatment of carcinoma of the stomach depends upon early diagnosis and prompt surgical interference. When malignancy is recognized in its early stages, the affected area can be satisfactorily removed, thereby securing a large percentage of cures. The operation consists of complete removal of the growth and nearby glands, subjected to possible contamination.

SURGERY OF THE GALL-BLADDER AND DUCTS.

BY J. EMMONS BRIGGS, M.D., BOSTON, MASS.

(Read before Surgical and Gynæcological Society of the American Institute of Homœopathy.)

THE presence of calculi in the gall-bladder is exceedingly common in persons past middle life; is said to occur once in six persons after 60 years of age, yet is comparatively rare for them to give rise to symptoms, and may not be detected until discovered in the course of abdominal operation or at *post mortem*.

Biliary calculi are made up of cholesterin, bile and lime salts and bile pigments. This much has been known for years, but recent investigation has demonstrated that the true origin of the gall-stone dates from a period of microbial invasion of the gall-bladder. This involvement may have been so insignificant as to occasion few, if any, symptoms, but the presence of bacilli within the gall-bladder, and the pathological changes they produce, are nevertheless positive factors in cholelithiasis.

An evidence of the presence of bacteria in the gall-bladder during the early stages of calculus formation is the demonstration, notably, of the colon bacillus in the interior of the biliary calculus. Here is a proof of their presence while the concretion was in its infancy which is as conclusive as the fossils found in rocks are evidences of prehistoric life.

All infected elements may have disappeared from the gall-bladder before the calculi caused trouble in it, or in their passage through the ducts.

The common duct opens into the duodenum, bifurcates into the cystic and hepatic ducts, at its upper end. There is practically nothing to prevent bacilli, which are inhabitants of the alimentary canal, from working their way up the ducts, except that they are opposed by a current of bile which continuously forces them backward.

Any changes or alterations in the mucous membrane of the ducts provide a favorable soil for the implantation of septic micro-organisms and facilitate extension of the septic processes.

With the gall-bladder filled with calculi, with frequent descents of one or more of these through the ducts, and the traumatism attendant thereon, with the terminus of the duct always teeming with thousands of pathogenic and pyogenic bacteria, it is easy to understand that the contents of the gall-bladder in cases of biliary lithiasis is frequently septic.

Again, it will be easy to comprehend that any condition which would hinder the flow of bile, either in the mode of life, dress or food, would tend to promote infection of the gall-bladder, which, as we have already said, will favor the formation of biliary calculi and, as we shall demonstrate later, be a causative factor in cholecystitis.

Biliary calculi, as we have previously explained, may be present in the gall-bladder and occasion no symptoms whatever, but when they become engaged in the ducts will produce symptoms known as gall-stone colic; and if they become impacted in the cystic, common or hepatic ducts occasion grave and often fatal consequences.

The time is ripe for us to consider all cases of appendicitis as surgical, *i.e.*, they should be watched and cared for under surgical supervision; not that every case shall invariably be operated upon as soon as seen, but the patient should be observed with an eye single to the most propitious opportunity for surgical interference. Years of successful operations, with exceedingly low death-rate, and freedom from unfavorable sequelæ, have convinced surgeons, family physicians and the laity of the wisdom of surgical interference.

In cases of biliary calculus, surgeons have only recently

warmly advocated operative measures. General practitioners still incline to medical treatment, and the layman knows little of the surgery of the gall-bladder and follows the advice of the attending physician.

The profession to-day recognizes that there is a distinct field for both medicine and surgery in the treatment of gall-stones. The question to-day is, what cases shall be treated medically and what demand surgical interference? In the writer's opinion, all cases of cholecystitic pain and those characterized by attacks of colic lasting a moderate length of time, unaccompanied by fever, should be treated medically.

Surgical treatment is demanded without delay in all acutely septic conditions of the gall-bladder and ducts, in septic cholecystitis, hydrops, empyema, gangrene, perforation, diffuse peritonitis, and abscess of the liver. Surgical treatment is advisable in patients suffering from oft-repeated attacks of colic, even without fever, if the attacks come so frequently that the general health is impaired or the patient's vocation interfered with; also after any attack which was attended with distention of the gall-bladder and fever.

A gall-bladder which can be palpated and is sensitive will demand operation during attack if it is severe enough, or after the cessation of symptoms in order to prevent repetition.

When to Operate.—Operations upon the gall-bladder in point of urgency rarely compare with those on the appendix vermiformis. It is generally acknowledged that it is safer to perform appendectomy during an interval than in the course of an acute attack, but in appendicitis the danger in tiding the patient over is so great that a sweeping rule to operate every case as soon as diagnosis is made would lower the death-rate.

In considering the time for operating upon gall-stones the interval operation is again the safer, and we have not so serious a menace in the inflamed gall-bladder.

The walls of the gall-bladder are composed of muscular and elastic tissue, which readily distends. Its wall thickens and rarely ruptures. Distention to the capacity of a pint is frequent. Only in cases of advancing sepsis and extreme distention is there a demand for immediate operation.

It is generally safer in cholelithiasis to undertake operation during a quiescent period—where the mortality is low. An-

other great advantage lies in the fact that stones will not be overlooked, as frequently occurs in operations made during acute attacks. The thickened bladder walls often contain sulci, in which calculi remain partially embedded in mucous and inflammatory *débris*.

The chief advantage in the interval operation lies in the fact that there is not likely to be impaction in the ducts, a complication which renders the operation exceedingly difficult and very materially increases the mortality.

For years past I have been very loth to operate upon patients suffering from acute obstruction in the ductus choledochus. It is far better to wait a reasonable length of time for the stone to pass. The jaundice which makes its appearance within a few hours with clay-colored stools are evidence that obstruction is complete. It is now an unfavorable time to operate. It would probably necessitate choledochotomy. With the temperature practically normal it is not very likely to persist any length of time, for the pressure of the dammed bile will force the stone onward to the duodenum. The bile will then appear in the fæces and icterus abate.

The operation for gall-stones, when they are contained within the gall-bladder, in a patient not too fat and in good physical condition, is neither difficult nor fraught with any particular danger. We must proceed throughout the operation upon the supposition that we are dealing with a septic fluid within the gall-bladder, and govern ourselves accordingly.

The technique of an uncomplicated operation is as follows: Incision about one inch in length is made in the right linea semilunares, commencing at the border of the costal cartilages and carried down to the peritoneal cavity. The finger is then introduced through the small opening and the gall-bladder palpated. The pressure of a densely distended bladder is evidence of obstruction. The finger is then carried more deeply along the convex under surface of the bladder in an attempt to locate the calculus. Having demonstrated the distended gall-bladder and possibly the stones, the incision is enlarged downward until sufficient room is obtained. Retractors are placed on either side and the fundus of the gall-bladder comes into view. Before opening the bladder I elevate it and pass my hand along the ducts and palpate them carefully. If the patient is jaun-

diced I direct especial attention to the common duct. The cystic must always be palpated. Whether discovering stones in the ducts or not, gauze pads are carefully arranged so as to protect the peritoneum. This will usually require five or six pads, and the gall-bladder is then aspirated. While the aspirating needle is within the gall-bladder it is moved about in the effort to locate calculi, which are readily felt.

If the patient has suffered from acute inflammatory attacks, numerous adhesions between the gall-bladder and adjacent intestines will be encountered. These must be carefully separated, all bleeding points picked up and ligated. Then the fundus is incised and the stones removed with gall-stone forceps. The interior of the gall-bladder is swabbed out with pieces of dry gauze on sponge forceps. In doing this it not infrequently happens that small stones are withdrawn with the gauze which might have been overlooked had this step been omitted. It also cleanses the interior of the gall-bladder. The sound or probe is next introduced into the cystic duct. This is directed by the left hand while the fingers of the right are used to palpate the duct from the outside. The probe is now passed into the common duct and the obstruction, if it exists, can be located. Finding none, a purse-string suture of hardened catgut is carried around the fundus about a half inch from the incision, and a drainage-tube is carried into the gall-bladder, and the purse-string suture tightened about the tube. The gauze mops are now removed and the gall-bladder secured to the peritoneum by two stay stitches of silkworm gut, one of which is introduced through the skin fascia, muscles and peritoneum through a section of gall-bladder just below the incision and out again on the opposite side of the wound. The second stitch of silkworm gut is next introduced which fixes the gall-bladder just above the incision. Occasionally, the gall-bladder is sutured to the peritoneum by interrupted catgut sutures, but this is not usually necessary, the two suspension sutures of silkworm gut being sufficient. The lower part of the wound is closed by layer suturing, and the abdominal cavity is not drained unless there are especial indications demanding it. Thus it will be seen that the lower part of the wound is closed, while at the upper angles the drainage-tube is adjusted.

In the cases I have operated upon it has been rare for any

free bile to escape during the operation, but it usually makes its appearance upon the dressings during the first twenty-four hours. If the cystic duct is not obstructed it will appear shortly. Should there be obstruction in the common duct and the hepatic and the cystic free all the bile will come through the tube. When the inflammatory condition in the common duct commences to subside and the drainage-tube has been removed from the gall-bladder and the wound begins to narrow, then the bile upon the dressings will diminish and the feces resume their normal color. How long this will take depends upon conditions which we cannot observe, but concerning which we can with considerable accuracy know, as we gather our information from the behavior of the wound, the character and quantity of the discharge and frequent examination of the stools and urine.

In the typical cholecystostomy we do not drain except by a tube into the gall-bladder as described above. In cases where considerable sepsis exists a drain of gauze is adjusted beneath the gall-bladder and allowed to protrude from the upper part of the wound just beneath the rubber tube.

The attendants are instructed to remove the gauze which is placed over the end of the tube as often as it becomes saturated, but to disturb neither the tube nor gauze wick. On the third day the wick is withdrawn and rarely replaced. The drainage-tube is allowed to remain at least five days, whereupon the wound is encouraged to heal. It is hard to predict how long it will be before the sinus closes. It may be two weeks, but it is likely to be a much longer time. In my experience it has averaged five weeks.

The patient remains in bed for about three weeks, when he may be allowed to sit up if the wound has sufficiently healed; but it is not necessary for him to remain in bed until the biliary sinus has closed. If after a month's time it is still discharging it should be irritated with nitrate of silver. If after another two or three weeks the condition remains the same a curette may be used and the granulation tissue removed. This will usually suffice and be followed by closure.

I have taken occasion thus far to explain my method of procedure in uncomplicated cases. If all were as simple then would operation for gall-stones be robbed of all its terrors!

Many and varied are the deviations, and those which will receive special consideration in this paper are the lodgment and impaction of stones in the cystic and common ducts. These complications present features very difficult to handle from an operative point of view and some of them are attended by a very high mortality.

When stones are present in a reasonably healthy gall-bladder I prefer the operation of cholecystostomy, as described. However, an ideal cholecystotomy may be performed and differs from the former in that the gall-bladder is immediately closed with a fine Lambert suture. In case this is done it is unwise to close the abdominal wound, for it is quite possible that blood clots may occlude the ducts of exit, back up in the gall-bladder and tear it open. If any sepsis exists, and it is impossible to say that it does not, this must be followed by general peritonitis.

The operation of cholecystectomy is just coming to the front. The surgeon, however, must be absolutely positive that there is no obstruction of the choledochus before he resorts to this measure. If one contemplates the extirpation of the gall-bladder it is well to apply a pressure forcep to the cystic duct before any attempts are made to extract stones from the gall-bladder, for, in the manipulation incident to extraction, a stone may be pushed into the duct below the point where the amputation of the duct is to be made.

The operation of cholecystectomy is made by freeing the gall-bladder from the lower surface of the liver, throwing a ligature around the cystic duct and amputating. The stump may be treated by inversion, as in a manner similar to that used in appendectomy and the peritoneum closed over it, but this can only be done in exceptional instances. It is always well to provide drainage down to the stump for two reasons, first, on account of probable sepsis and, second, because there is likelihood that there will be considerable oozing from the wounded liver.

From remarks already made it will be seen that cholecystotomy (the ideal operation) is rarely performed, because cases where we would dare to close the gall-bladder are few.

Cholecystostomy is indicated when there is a probability of obstruction in the common duct, when numerous adhesions exist and a marked degree of sepsis is present, also in enfeebled

patients where the more severe operation of extirpation of the gall-bladder is counterindicated.

Cholecystectomy is undoubtedly the preferable operation, for it not only gets rid of stones present, but does away with the possibility of new formations. It cannot always be employed because of adhesions which render the field inaccessible, and the patient's condition may not warrant it. Cholecystenterostomy should not, in the writer's opinion, be considered in a class with those preceding. It doubtless has a field, but has the serious objection of rendering liable the infection of the bile-passages from the intestine at the point of anastomosis.

Let us now very briefly consider the steps to be taken, when after the removal of the calculi from the gall-bladder we discover that one is impacted in the cystic duct. I have found that with a ring scoop and fine forceps stones can usually be extracted from the cystic duct. A very soft calculus may be crushed between the thumb and fingers. If all efforts to dislodge the stone are unavailing we may incise the cystic duct and remove the concretion. The duct must then be closed with a fine Lambert suture and the wound drained by a tube within the gall-bladder and drainage adjusted against the incised wound of the cystic duct. Another and better method of treating an impacted stone in the cystic duct is to extirpate the gall-bladder, duct, and with it the impacted calculi, thus making a cholecystectomy.

All the conditions described above are simple as compared with that major complication, impaction of a calculus in the common duct. The patient will be jaundiced and probably in wretched physical condition to withstand any severe operation.

In choledochotomy we have a formidable operation even under the most favorable conditions. With a stone in the common duct there is but one consideration: to get it out. Various expedients as crushing, needling, milking up or down, may be recommended by eminent authorities, but an incision directly into the choledicus will be the most satisfactory. The nearer the duodenum one enters the duct, the greater the danger from septic infection. As the duct is so very deeply located and inaccessible, it is almost impossible to accurately adjust sutures, and there may be a great outpouring of bile through a fistulous opening. If choledochotomy is ab-

solutely impossible, then cholecystostomy will relieve the symptoms due to the backward pressure of bile, but with the obstruction remaining in the common duct all bile will find its way out by way of the gall-bladder fistula.

I have omitted to mention a very serious sequela which we are informed frequently occurs in jaundiced patients. Fortunately, in my experience, I have never met with persistent and uncontrollable capillary hæmorrhage. The longer the duration of jaundice and the more pronounced the cholemia, the more extensive will be the fatty degeneration of the walls of the arterioles and the greater the retardation of coagulation of blood. In these cases all known measures fail to check the capillary oozing and death usually ensues.

Late Results Following Gall-Stone Operations.—We will consider first the persistence of a fistulous opening at the site of a drainage-tube or the reopening of wounds apparently healed.

Biliary fistulæ are always a source of great annoyance to the patient. Those which discharge bile cause a considerable irritation to the skin; all of them require continuous care in dressing. Patients are anxious that they be closed and demand relief. What can be done? If, after irritating with nitrate of silver and gentle curetting, the sinus refuses to heal, and the discharge is mucoid in character containing no bile, we are sure that there is an obstruction in the cystic duct, probably a calculus which was overlooked in the operation. There is nothing to do in such cases but to open through the original wound and remove the stone or perform cholecystectomy. It is possible that the obstruction is due to obliteration of the cystic duct by inflammation, or a kinking of the duct by suturing of the fundus in a faulty position. If the fistula pours out bile in large quantities and persists for a number of months in spite of intelligent treatment, we can be reasonably sure that some obstruction exists in the common duct, and another operation must be undertaken which will be preferably a choledochotomy or cholecystenterostomy.

Post-operative hernia through the scar follows in a relatively small number of cases. The location of the incision so high upon the parietal wall accounts for the infrequency. If it occurs the wearing of a well-fitted abdominal belt may relieve all unpleasant symptoms.

Recurrence of Calculus Formation After Operation.—After cholecystostomy relapse is possible, yet calculus-reformation after proper removal is exceptional, and all surgeons with a certain amount of experience have been struck by this fact. Different writers on the subject say, "I do not know of a single example of true relapse." Another says, "I have seen no recurrence in twelve years' experience." "I have only met with a single case among ninety-five cases."

False relapses are common. They are not due to calculous formation, but cholecystitic pains are due to adhesions of the gall-bladder to the abdominal wall, omentum or intestines, or twisting or kinking of the cystic duct due to adhesions. These conditions occasion pain, not unlike that previously experienced by the patient, and are often considered to be due to new stones.

The cholecystitis gradually abates, and the adhesions will in a few months stretch so that the patient is gradually and permanently relieved.

In order to know about the late results I have addressed the following letter to the patients on whom I have operated and have received replies as indicated in italics below:

BOSTON, MASS., Feb. 2, 1904.

MR. ———

Dear ———. On ——— I operated upon you for gall-stones. It would give me great pleasure to hear from you as to the permanency of the cure and other points as specified below.

Will you please reply to the following questions at your earliest convenience and greatly oblige,

Yours very sincerely,

1. How many attacks of gall-stone colic did you have before you were operated upon? *Average, 40 attacks.*

2. How long after the operation before the sinus (wound) healed? *Five weeks.*

3. How has your general health been since the operation? *All patients replied very good except one, who said fair.*

4. Have you had any recurrence of gall-stone colic? Describe very minutely any pain you have had in the region of the liver, giving number and frequency of attacks. *One who said she had an attack similar to those before her operation and had been jaundiced. Another patient had pain just before her wound reopened.*

5. Has the wound reopened at any time? *One patient.* If so, what has been the character (color) and amount of the discharge? *Discharge mucoid in one case.*

6. Were you jaundiced before your operation? *One-fifth of all.* Have you been since? *One.* How many times? *Once.*

In the Massachusetts Homœopathic Hospital the first operation for gall-stones was performed in 1895. During the succeeding five years 33 operations were performed. In 1900, 24 operations; in 1901, 16; in 1902, 31; and in 1903, 20.

The 121 operations include practically every known complication, and a large proportion of what should be considered neglected cases, where operations were undertaken as a last resort. The death-rate was 19.83 per cent., which in consideration of the imperfectly defined technique, which always exists in an entirely new field of surgery, is creditable, rather than otherwise. In my own work I have a mortality of 13.33 per cent. I shall append a report of only two cases which are rather extraordinary:

CASE I.—*A Tremendously Distended Gall-Bladder.*—Mrs. G., aged 58, had been suffering from repeated attacks of pain in the abdomen, especially upon the right side. She had been progressively increasing in size, suffers now somewhat from dyspnœa. About four weeks ago had an attack of especially severe pain with temperature, nausea, vomiting, with distention of the abdomen. On March 19, 1903, I saw her for the first time, and physical examination revealed a rather symmetrical tumor which presented in the right side; its most prominent point was a little to the right and below the umbilicus. Its location was precisely that of an ovarian cyst of the right side. This diagnosis had been made by her physician and I concurred in it. An incision between the symphysis pubes and the umbilicus in the median line was made. What was supposed to be a greatly thickened and inflamed cyst wall came into view. Strong adhesions existed to all structures in the neighborhood and attempts to separate them were followed by extensive hæmorrhage. The tumor ruptured and I was astonished to see a mucoid fluid filled with cholestine crystals, in amount estimated by those present to be three pints. In the interior of this greatly distended gall-bladder twenty-seven faceted gall-stones were discovered.

This is the most enormously distended gall-bladder I have ever seen. The wound was packed with gauze and a drainage-tube adjusted. The patient made an excellent recovery, but it was several months before the biliary fistula closed.

CASE II.—Mr. W., aged 21. Patient had had numerous attacks of gall-stone colic, had been jaundiced with three of them. Eight days ago was taken suddenly with a severe attack of colic, pain, epigastric, and extending to the right shoulder blade. After suffering for twelve hours became jaundiced, the color gradually deepened, vomiting was persistent, very restless and nervous, with a temperature of 102 and pulse 104. He was in extremely bad condition, both septic and cholemic. I ordered his removal to the hospital and operated. The gall-bladder was greatly distended, numerous dense adhesions existed. The fundus was opened and fifty-six gall-stones were removed. The gall-bladder was filled with a purulent mucoid material and was actually in a state of empyema. This condition not being sufficient to account for the extreme jaundice, the choledicus was palpated and a large stone found securely impacted in the duct. As I could not dislodge it the duct was incised and the calculus removed, and the wound closed with Lambert suture.

The patient did badly, continued to vomit and died fifty-three hours after the operation of symptoms resembling peritonitis. Yet at the autopsy no peritonitis existed. The drainage had taken care of the slight leakage which occurred at the site of the wound in the common duct. The patient would have probably lived had operation been undertaken earlier, before cholæmia was so marked and septic infection so far advanced.

A CASE OF FACIAL PARALYSIS WITH AUDITORY TROUBLES.—Dr. A. Bienfait was consulted by a man of 57, who one day felt a pain in his right ear; the following days his ear roared and deafness of the same side followed, with vertigo and vomiting; at the same time a right-sided facial paralysis developed.

When the author saw the patient for the first time, more than three months after the beginning of the symptoms, he detected, besides the classical facial paralysis, affecting the three branches of the nerve with reaction of degeneration, a notable diminution of hearing in the same side. The patient still had the head-noises which, though more marked on the right, affected both sides. The ears had been examined by two specialists who found nothing.—*Ibidem*.

A REVIEW OF THE OPERATION OF CERVICAL SYMPATHECTOMY, WITH
A PRELIMINARY REPORT OF TWO CASES.

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(Read before the Surgical and Gynæcological Society of the Am. Inst. of Homœopathy.)

THIS operation, as its name implies, is the removal of the cervical sympathetic nerve, with one or all of its ganglia on one or both sides of the neck. It has been done with success for the relief of epilepsy, Graves' disease, glaucoma, optic atrophy, ophthalmic migraine, spasmodic torticollis, facial neuralgia, and even for acne rosacæ.

The first name we have found mentioned, in connection with removal of any of the cervical ganglia for therapeutic purposes, is that of Alexander, of Edinburg, who, in 1889, removed the superior ganglion for epilepsy.

Simple division of the cervical sympathetic nerve for Graves' disease appears to have been first done by Jaboulay, of Lyons, in 1896. In the same year, Jennesco, of Bucharest, Roumania, performed true sympathectomy in 15 cases,—13 for epilepsy, and 2 for Graves' disease; and between this date and the end of 1898 he performed the operation 7 times for glaucoma,—these latter being the first done for this disease. During the first five years following his initial sympathectomy he performed about 130 bilateral cervical sympathectomies, ranging from the removal of the superior ganglion (which was the smallest exsection) to removal of all three ganglia, and in 2 cases even removal of the first thoracic ganglion. One hundred of these operations were for epilepsy, 15 for Graves' disease, 12 for glaucoma, and 2 for migraine. Because of the large number operated and reported by Jennesco, his name has come to be intimately associated with this procedure, so much so that some authorities index it as "Jennesco's Operation."

Having noted the wide range of application of this operation, we might review the anatomy of the cervical sympathetic nerve.

Deaver gives the following description: "It is situated be-

hind the carotid sheath, or in its posterior wall, and lies beneath the prevertebral fascia, where it rests upon the rectus capitus anticus major and the longus colli muscle. Three cervical ganglia, the superior, middle and inferior, lie on each side of the neck."

"The superior cervical ganglion, the largest of the three, is a long fusiform body, situated opposite the transverse processes of the second and third cervical vertebræ, behind the sheath of the great vessels. It is formed probably by the fusion of four ganglia as it communicates with four spinal nerves. It gives off an ascending and a descending branch, branches to cranial and cervical nerves, branches which follow the external carotid artery and its branches, pharyngeal branches, laryngeal branches, and the superior cardiac nerve.

"The middle cervical, or thyroid ganglion, the smallest of the three ganglia, appears as a swelling upon the sympathetic cord. It may, however, be absent. It rests upon or beneath the inferior thyroid artery, opposite the transverse process of the sixth cervical vertebra, and is formed probably by the fusion of two ganglia as it communicates with two spinal nerves. It gives off communicating branches to the superior and inferior cervical ganglia and to the fifth and sixth cervical nerves, thyroid branches, and the middle cardiac nerve.

"The inferior cervical ganglion is intermediate in size, between the middle and superior ganglia. It is deeply situated between the transverse process of the seventh cervical vertebra and the neck of the first rib, and lies to the inner side of the superior intercostal artery, behind the vertebral artery. It is formed probably by the fusion of two ganglia as it communicates with two spinal nerves, the seventh and eighth cervical. It is joined to the first thoracic ganglion by two large nerves and may be fused with that ganglion. The sympathetic cord and the ansa Vieussensii connect it with the middle cervical ganglion. It gives off the inferior cardiac nerve and branches, which form a plexus on the vertebral artery."

We can understand from the distribution and connections of this nerve why its division or removal can influence or control certain of the symptoms of the above-mentioned diseases, or perhaps the disease itself. We do not at present say *cure*, but use advisedly the term *control*. Whatever theory we may ac-

cept as to the origin of these diseases, the relief by this operation of certain disease symptoms seems reasonable if we bear in mind the constant symptoms produced by section or removal of this nerve.

Removal of the superior ganglion causes contraction of the iris, relaxation of the circumbulbar muscle, vascular dilation, lower intraocular tension, and a decrease in the elements constituting the aqueous.

The lessening of ocular tension, due to excision of the superior ganglion, is explained by the ablation of the ocular fibres of the sympathetic which traverse the ganglion before reaching the eye. These fibres are distributed to the iris, the uveal tract, the vessels of the eye, and the peribulbar muscular apparatus contained in the capsule of Tenon. Their excitation, permanent or intermittent, peripheral or central, produces a collection of phenomena, which is termed glaucoma.

Jennescio believes glaucoma to be central, and not peripheral, in origin, and in suppressing the superior ganglion the origin of the trouble is not removed, but the ways of transmission are destroyed. He thinks this operation should be especially successful in its results in chronic, irritative glaucoma and in simple chronic glaucoma.

He has collected (1902) reports of 35 sympathectomies for glaucoma from various sources, including his own 12, with marked improvement in all but 5 cases. Of his 12, 5 were done in 1897; of these, 2 failed to produce immediate beneficial results, and he was not able to learn the subsequent history; 1 showed excellent immediate result, but passed later from observation; 2 were greatly improved, and have remained in good condition since.

Two were done in 1898,—1, a case of acute glaucoma, was not benefited; the other, after operation, had increased vision, and the patient had resumed his occupation in 1902, nearly four years after.

Two in 1899—1 was very much improved; the other was improved in some symptoms, but the vision had not improved.

Three in 1900, of double irritative glaucoma; the symptoms in 2 cases were much improved, and in the third the pains and symptoms were lessened, but the vision remained the same.

From these cases he concludes that the immediate, as well as

the ultimate, results of cervical sympathectomy in glaucoma are very satisfactory, but that complete restoration of vision in such cases cannot be expected without recreation. That we have reason to expect improvement and relief from pain in these cases, however, and to feel that even the maintenance of the limited amount of vision that existed at the moment of operation, is of the greatest advantage. To be able to prevent the progress of glaucoma is a notable advance in modern ophthalmology.

Our case was done too recently to draw conclusions as to the final outcome, but the immediate results are good enough to warrant the operation, from which the patient suffered no pain, simply complaining of a stiffness of the neck.

The following is the history of the case, as well as we were able to secure it in the absence from the country of Dr. Blair, who referred the case, advising sympathectomy :

CASE I.—Mrs. J. C. H., age 56. Patient first presented herself on January 6, 1902. The vision was blurred, and objects to be seen plainly had to be held at some distance. A careful examination revealed the following: O.D.V. $\frac{6}{18}$ O.S.V. fingers at two metres, pupil slightly dilated and sluggish, the cornea sensitive, the depth of the anterior chamber unaltered, iridies slightly discolored, tension of O.D. about normal, tension of O.S. plus 2. This increase of tension, however, was not a constant quantity. Examination of the fundus of O.S. showed the presence of the characteristic cupping of the disc and arterial pulsation. The refractive media were but slightly clouded and the visual fields normal in O.D. and markedly contracted in O.S., especially on the nasal side.

Iridectomy was advised in O.S., and was performed November 25, 1902, from which patient made good recovery. Examination of eyes on March 14, 1902, showed marked improvement in the vision, as well as the tension in O.S., the vision being $\frac{3}{60}$ and the tension about normal. The field of vision of O.S. showed but slight improvement, and then it was that glaucomatous symptoms appeared in the right eye; the tension being plus 1 and fundus showing all the symptoms of glaucoma simplex. Iridectomy was advised for O.D. and the operation was performed. Improvement was marked for a time, but three months after the operation the tension in both eyes was found

to be plus 1, and the operation of sympathectomy was advised for the right eye, which was performed on May 12, 1904, on the right side, under ether anæsthesia. The operation was done in the usual manner, excepting that the incision was through the sterno-cleido, mastoid muscle, instead of anterior or posterior to it, as is frequently advised; the advantage of this incision being that it brings one more directly to the final field of operation with less retraction than the anterior or posterior methods. The superior ganglion and nerve down to the middle ganglion was removed. The sterno-cleido was reunited with catgut and the patient made an uneventful recovery, being out of bed on the fifth day and leaving the hospital on the eleventh day after operation. After the patient had thoroughly recovered from the anæsthetic she declared that the eye felt greatly relieved, that she did not feel the pressure and pain which she had previous to the operation, nor was she troubled with flashes of light which she had complained of before the operation; in fact, she experienced much relief in head generally. The pupil, which had previously been iridectomized, did not contract, nor has it contracted since. An examination of the eye condition on June 11, 1904, about three weeks after the operation, showed the following: vision $\frac{6}{9}$, tension slightly above normal, but markedly reduced from what it was previous to the operation. Ophthalmoscope showed media slightly hazy and cupping of disc, though not as marked as on previous examination. Patient says she thinks her vision is improving.

While the surgeon will have to be governed by the advice of the ophthalmologist, in regard to the operation of sympathectomy in cases of glaucoma, it would appear that from the results of Jennesco's cases and those of others the operation is justifiable, has a legitimate standing, and should be advised in certain cases of glaucoma; and we should not dismiss it, as a certain editor has done, with the remark that "this fad has had its day." Certainly, an operation which shows the number of good results this operation shows is more than a "fad."

The testimony of various operators (see appendix) appears to show that resection of the superior ganglion of the cervical sympathetic is a rational procedure in progressive glaucoma (except the acute form). Before vision is completely destroyed, the sooner it is done, after a fair trial of other treatments, the better should be the results.

In epilepsy, for which sympathectomy has been frequently done, some of the results are gratifying, although perhaps not so satisfactory as when done for glaucoma.

S. T. Hopkins, March 5, 1904, reports 5 cases of resection of the superior and middle ganglia for epilepsy; all of which were improved, and some apparently cured. One case had, on June 10, 1901, fifty convulsions in twenty-four hours. The operation was done July 18, 1901. On the following day patient had seven severe attacks, and had an attack of grand mal every day afterwards up to August 1, 1901, but each recurring attack was lessened in severity. He has now been free from attacks for two years and one month.

Chipault, of Paris, operated 25 times for epilepsy, with 3 complete successes. Those patients who had two or three attacks daily have had none for several years.

Jennesco operated 13 cases for epilepsy in 1896: 3 were completely cured and had no seizures for five years; 1 was distinctly improved, the attacks having very much lessened in number and severity; 4 were unsuccessful; 5 died since the operation, but not as a result of the operation, either immediately or remote. In 1897 he did 17 for epilepsy, of which 6 were completely cured; 2 greatly benefited; 5 not improved; 4 results unknown, having passed from observation. In 1898 he did 19, with 3 absolute cures; 1 greatly improved; 5 same as before operation; 10 present condition unknown. He does not regard any results as definite until two years have passed.

The theory of the operation for epilepsy involves the hypothesis that epileptic attacks are due to cerebral anæmia, the impulse producing which *may* be transmitted from a distant part of the body. The cervical sympathetic contains nerve filaments that are distributed to the vessels of the brain and are capable of carrying impulses which cause narrowing of the lumen of those vessels, and, consequently, brain anæmia. Therefore, that section of the cervical sympathetic, by cutting off the avenue through which such impulses are carried, prevents the occurrence of brain anæmia, and so permits the uniform and constant nutrition of brain tissues upon which cerebral stability depends.

Deaver concludes from his own observation, and a study of the work of others, that "in recurring attacks of epilepsy sym-

pathectomy should be resorted to. The results warrant the operation."

Roswell Park says: "In epilepsy, when seizures can be warded off or mitigated by prompt use of amyl-nitrite, we may well consider the propriety of an exsection of the cervical sympathetic."

The cases of epilepsy which reach the surgeon have usually been through a more or less complete medical treatment and apply for surgical advice; or, relief by surgical procedures. In these cases, then, if we are satisfied that proper medical measures have been applied without encouraging results, and no other operation is positively indicated, we believe it unfair to the patient to withhold from him a knowledge of the results of this procedure, and give him an opportunity to accept or decline the operation; for it is not, in our opinion, a dangerous or severe one in these cases, and we believe with Deaver that the results warrant the operation.

CASE II.—This case was operated so recently, June 17, 1904, that no conclusions can be drawn regarding the cure. It shows two things, however,—first, that the complete bilateral operation at one sitting is not as severe, or at least any more severe, than a great many other operations daily undertaken; and second, the history, to our mind, shows a case in which any operation offering relief is justifiable.

R. J. McA., age 31. Has had attacks of epilepsy more or less regularly since he was a year old. Never had any head injury or fall of which he is aware. His personal and family history give no clue as to cause. The seizures vary in frequency from a week to three months. Two years ago he was free from attacks for nine months, during which time he was working in an electric light plant. He attributes this to the electricity. He has been badly burned twice by falling during a seizure—once in a bed of coals and once against hot pipes—both times falling on his face, so that his face is badly scarred, and he is a pitiable looking object. He is of ordinary intelligence, having had a common school education.

The only premonition he has of a seizure is that sometimes a feeling of nervousness precedes it. At other times no warning whatever. Sometimes when feeling this nervousness he is able to walk 30 or 40 feet to a chair, when he goes to sleep without a seizure.

Over-exertion, excitement or disordered stomach seem to favor attacks. Thinks he passes more urine previous to attacks than at other times. Urine negative.

The spasms are not confined to any particular set of muscles, but appear to be general.

He has been treated by numerous physicians at various times and has also been in the hands of ophthalmologists.

We offered him the operation of sympathectomy, which he readily accepted, with the understanding that we could promise nothing positive in the way of a cure.

The bilateral operation was done, removing all three ganglia on each side. The patient reacted well and there were no complications. Both pupils are markedly contracted and have been since the excision.

(In this bottle, mounted, are the right and left cervical sympathetic nerves from this case, with their three ganglia. The right is decidedly larger than the left, which may indicate some abnormality.)

For exophthalmic goitre, the operation has been also quite extensively used, but there is considerable difference of opinion as to whether this operation or thyroidectomy, or, in fact, any surgical procedure is justifiable.

It has been said that the underlying causes of Graves' disease are obscure and subject to much debate; whether a direct or reflex stimulation of the sympathetic, a neurosis, a lesion, a compression, or an intoxication, has not been definitely determined. Three theories are advanced, namely: hyperthyroidization, disease of the central nervous-system, or alteration in the sympathetic system. The arguments in favor of the thyroid gland itself are mainly based upon the failure to find reliable post-mortem evidence of disease of the nervous-system.

Mikulicz and Reinbach believe that while "the presence of Graves' disease cannot be explained by an excessive function of the thyroid, yet the hypertrophy of this gland plays a prominent rôle by adding the phenomena of thyroidism to the other symptoms. The failure of thyroidectomy is therefore to be ascribed to the fact that in spite of the removal of this factor, the primary injury, viz., the nerve lesion, is sufficiently severe to render the phenomena of the disease continuous. The influences of heredity, age, sex and temperament tend with re-

markable unanimity to point to a nervous origin. The tachycardia, hyperidrosis, tremor, decrease of electrical resistance and general nervous unrest, which are so constantly present, would also denote a nerve influence. There are some cases also in which the enlargement of the thyroid is very slight or even absent.

“For the present, at least, we must assume that exophthalmic goitre is dependent upon all these factors, and that a lesion of one may cause specific alterations in the other with the production of the well-marked symptoms denoting the disease.”

Were the ganglia the seat of the trouble, we could readily understand why their removal was followed by better results than simple section or removal of the nerve strand.

James Berry, in his work on *Diseases of the Thyroid Gland*, is of the opinion that neither an irritative nor a paralytic lesion of the sympathetic will account for the symptoms of the disease, and that these symptoms moreover are not those which we know to be the result of gross lesions of the sympathetic.

That recent researches, especially those of Mobius, Greenfield and Murray, point strongly to the view that the primary source of the disease lies in the thyroid gland, in which alone definite and remarkable lesions are always found.

That the complex group of symptoms which characterize the disease are probably caused by an alteration of the internal secretion of this gland. The secretion appears to be altered in quantity, and probably in quality, also. This altered secretion, when circulating in the body, probably acts directly or indirectly, like many other poisons, upon the heart, upon the nervous-system, and upon the nutrition of many tissues of the body.

That there is no doubt a connection between exophthalmus and the sympathetic, but that it is by no means clear that the exophthalmus of Graves' disease is dependent upon this nerve.

That the cases in which improvement from sympathectomy are most likely to occur seem to be atypical cases, in which, however, grave doubts exist as to the correctness of the diagnosis.

Berry concludes that it would seem to him that it may reasonably be doubted whether surgical treatment is not on the whole worse than useless. None of the operations are

without risk, and actual proof is wanting that any of them actually cure the disease.

The latter statement by Berry is flatly contradicted by Von Bergmann, who advocates thyroidectomy, and shows results to prove the cure by thyroidectomy.

Berry is also contradicted by Ball and Jennesco, who advocate sympathectomy and show cures following the operation, and also by B. Farquhar Curtis, who reports cures from surgical operations.

James M. Ball says: "In exophthalmic goitre complete excision of cervical sympathetic is followed by a larger percentage of cures than any other procedure."

Von Bergmann says: "Two views are maintained; one considers the disease to be an affection of the nervous-system, especially of the sympathetic system, or of the medulla, without anatomical change—a neurosis as it were. The other view is that there is an over-abundance or faulty secretion of thyroidea, which poisons the system, especially the nervous-system. The second view seems to be more acceptable, because it is the only way of explaining the results of surgical treatment, and because a number of symptoms and anatomical conditions can as yet only be accounted for in this way. Partial strumectomy is to be considered the normal method of procedure; 230 cases reported show that 45 per cent. recovered after surgical interference (strumectomy) in Graves' disease. In 23 per cent. there was marked improvement, in 11 per cent. slight improvement, and in 10 per cent. no improvement; 7.5 per cent. succumbed, and in the remainder the result was unknown. These cases were not divided into genuine and secondary Graves' disease. In genuine cases the number of recoveries is about 36 per cent., while the percentage of improved cases and percentage of death is somewhat larger than in the general statistics. It must, however, be mentioned that in some cases recurrences have been observed usually associated with increase in the size of the remaining portion of the thyroid gland."

Sympathectomy has been done upon the theory of Abodie, that the vasomotor fibres of the bulbar sympathetic centre are irritated. Exophthalmus, struma and tachycardia are supposed to be due to dilation of the vessels, whereas the excess of secretion of the thyroid gland is explained by hyperæmia of the organ.

Von Bergmann states that the results of sympathectomy seem to be far less favorable than the results of operations upon the thyroid gland, although too few cases have been reported to allow of an absolute statement. The only symptom that seems to be favorably influenced constantly is the exophthalmus. *Tremor and tachycardia persist in almost all cases* and the general condition has not been improved. This last statement, however, is in direct opposition to the following results reported by Jennesco and Belacesque.

Jennesco reports (1902) 15 cases operated for exophthalmic goitre: 2 in 1896, 3 in 1897, 5 in 1898; 6 of these were completely cured and 4 much improved; 2 in 1899, 3 in 1900, all 5 of which were benefited.

When he says cured, he means that the general condition was so modified that nutrition became normal, and the nervous condition was restored to its original stability. Besides this, the three cardinal symptoms, prominent eyeballs, enlargement of thyroid and *persistent tachycardia disappeared completely*, also all digestive symptoms were relieved.

Belacesque favors the entire bilateral resection of the sympathetic above any other operation for exophthalmic goitre, and claims for it a far greater percentage of cures than any other operation. His statistics show 59 per cent. of cures, 29 per cent. of improvements, 12 per cent. of failures, and no deaths due to the operation.

B. Farquhar Curtis, of New York, has performed sympathectomy for exophthalmic goitre in 7 cases, with not much better results than those of thyroidectomy. Although it was rather early to judge, 3 were apparently cured, 1 improved, and 3 died.

He also did 11 thyroidectomies for the same disease, with 6 cures, 1 improved and 1 not followed. He claims that thyroid poisoning may follow either operation in exophthalmic goitre, being as common after one as after the other, and attributes it to the general disease and not the particular operation.

He has not been able from a study of the symptoms, before and after both operations, to find any sign which might seem to warn one that operation would be dangerous in any particular case, unless it be albumen in the urine, and he concludes that even a trace of albumen *may* indicate that the patient is apt to develop thyroid poison after either operation.

He concludes that "exophthalmic goitre can be cured both by thyroidectomy and sympathectomy. A perfect result can be expected in about 60 per cent. of thyroidectomies, and immediate good result appears to be the rule in sympathectomy. Sufficient time has not elapsed to judge of the permanence of the cure, but the immediate results of sympathectomy are far superior to those of thyroidectomy."

The theory regarding the influence of the three cervical ganglia of the sympathetic is rather attractive, the superior one influencing exophthalmus, the middle one responsible for the great dilation of the vessels in the thyroid, giving rise to the bruit, etc., the inferior ganglion presiding over the heart.

In cases which are not relieved by the removal of one-half of the thyroid gland, resort may be had to excision of one or more of the cervical ganglia according as the exophthalmus, the tachycardia, or the local symptoms predominate; although Halsted considers it generally easier and much more rational if a second operation is required to attack the gland again, removing in severe cases from three-fourths to three-fifths of the entire gland. The previous administration of thyroid extract increases the dangers of any operation in Graves' disease.

It seems, therefore, to us, that after a fair trial of other treatments, thyroidectomy or sympathectomy, or both, may be necessary at times to effect a cure. It appears also that sympathectomy would at times be required and could not be entirely excluded in the treatment of bad cases of Graves' disease.

Chipault found sympathectomy also of service in ophthalmic migraine, spasmodic torticollis and in three cases of facial neuralgia. In a very severe case of acne rosacæ, the operation produced an immediate and lasting cure.

He does not hesitate to say that the surgical and therapeutic application of this operation seems sure to increase, and that there are a number of chronic conditions about the face and head in which the underlying factor is some chronic disturbance of the superficial circulation that will be benefited by sympathectomy.

(August 16, 1904.—Case I. has not relapsed to date. Case II. has had no convulsions to date.—E. R. G.)

APPENDIX.

Following are the opinions of a few operators, together with their cases of glaucoma:

H. W. Dodds, of England, believes glaucoma to be peripheral in origin, and reports 3 cases of sympathectomy followed by immediate satisfactory improvement, but in the course of from four to seven months all relapsed to the previous condition before operation.

A. L. Whitehead, of Leeds, says, in simple glaucoma the results of this operation are more uniformly satisfactory than in inflammatory cases, but in the latter, when iridectomy fails, sympathectomy holds out some hope of relief.

Burghard, of England, reports 1 case with this operation with no beneficial effects.

Rohmer reports 17 cases of sympathectomy for glaucoma; five-sixths of chronic simple cases being improved. In chronic inflammatory cases, two-thirds were improved. Five hæmorrhagic cases were improved. The acute and sub-acute cases were the least responsive.

Wm. B. Coley, of New York, reports 1 case in which following the operation the visual field was nearly doubled and the tension much reduced, three weeks after operation.

W. B. Marple says, that while positive conclusions may not yet be reached, some of the glaucomatous eyes have been improved for some months by the resection.

Karl Hoor says, that the operation is indicated only after iridectomy and sclerotomy are of no avail; or without a preliminary iridectomy in glaucoma simplex, when there is much visual disturbance and narrowing of the visual field.

Coleman W. Cutler, of New York, believes that excision of the sympathetic is a physiological antagonist to the most important symptoms of glaucoma.

James M. Ball, of St. Louis, concludes from his cases that the operation is more valuable in simple glaucoma than in any other form, and that it is worthy of trial in cases of simple atrophy of the optic nerve, which resist measures less heroic. He claims priority for the operation in this latter class of cases.

G. F. Suker has collected 12 cases operated on in this country (which include some here mentioned) with removal of the

superior ganglion with good results, and believes this operation is valuable in absolute and hæmorrhagic glaucoma, in chronic glaucoma, especially when iridectomy and sclerotomy have failed, and at all times when other operative measures are refused. He also says although the excised ganglion shows sclerotic changes, the true relationship between them and glaucoma is an open question.

D. H. Coover, of Denver, concludes from his case that the operation is of no service in simple glaucoma where vision has been reduced to zero, but may be of service in arresting the disease in the earlier stages and retain vision before atrophic changes have taken place in the nerve retina and choroid.

Deaver concludes that in chronic glaucoma, especially after the failure of iridectomy and sclerotomy, this operation may restore vision completely, unless the disease is too far advanced, with absence of light perception.

Chipault, of Paris, reports 7 cases, with 1 complete success, and several with gratifying improvement as to pain and vision.

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THE DIETETIC TREATMENT OF DIABETES.—(Hutchinson.)—The following suggestions are offered :

(a) It is not safe to feed a diabetic up to the limits of his power of assimilation.

(b) In mild cases allow two ounces of bread, with abundance of carbohydrate-free foods, and continue such a diet as long as body weight and general nutrition remain all right.

(c) Twice a year subject the patient to a period of perfectly strict diet, in order to give the carbohydrate-assimilating functions a complete rest.

(d) In severe cases, when the patient excretes more carbohydrates than he takes in, it is necessary to ascertain the presence of oxybuturic acid in the urine before restricting the diet. If, on the addition of a few drops of solution of perchloride of iron, the urine assumes a dark port-wine color, any change of diet must be made very carefully, for such a patient is in danger of coma. The carbohydrates should be reduced slowly, and bicarbonate of soda administered in quantities from one-half to one ounce daily.

(e) If there is no improvement it is best to abandon all attempts at a rigid diet, and allow bread and milk.

(f) If perchloride reaction is negative, the strict diet may be presented without anxiety. Begin with eliminating sugar and all forms of carbohydrate food; then farinaceous food; then bread, and finally milk.

(g) The return of assimilative power may be tested by allowing a weighed quantity of bread; but, as a rule, the failure is progressive.

(h) If coma sets in, the best article of diet is skimmed milk, plain or mixed with Vichy water, to which carbonate of soda has been added.

(i) Use alcoholic stimulants freely, as alcohol lessens the destruction of proteids which cause the acid poisons producing the coma.

(j) In elderly persons absolute strictness of diet is not necessary. If there are no complications it is only necessary to stop the consumption of sugar.

(k) The obese are benefited in the diminution in the quantity of food they consume; alcohol with caution.—*The Practitioner*, London, June, 1904.

EDITORIAL.

BIGOTRY MIDST THE SHADES OF HARVARD AS BAD AS THAT OF
ARISTOCRATIC QUAKERDOM.

It was but a few years ago when we called attention to the bigoted action of the Dean of the University of Pennsylvania in refusing to enroll as post-graduate students physicians who had homœopathic diplomas. It has always seemed to us that nowhere except in the Quaker City, with its great reverence for tradition, could such allopathic narrow-mindedness be found. In Boston, however, we find amidst the shades of Harvard an equally stupid example of bigotry. In ye city around which the learning of ye world does revolve, there is an office building for physicians. It is expressly stipulated by the owners thereof that offices in said building shall not be leased to any but allopathic physicians. We believe one homœopath has been honored with offices in said building because he held a Harvard diploma. Now for the story in connection with this office building, the tenants of which are as pure and spotless as the undriven snow.

Quite recently, a prominent Boston allopathic oculist died. He had offices in the Hall of Virtue and Probity and his lease had some months to run at the time of his death. His estate was liable for the rent to the expiration of the lease. His widow could not secure an allopathic tenant. She did secure one of the homœopathic school. But the Judges of Medical Virtue of the Hub and vicinity declined to accept such tenant. Think of that for narrow-minded business.

As long as said Judges of Virtue, etcetera, are in the Virtue, etcetera, business, we would suggest that they appoint a Board of Censors to scan closely the prescriptions of the inhabitants of the Hall of Virtue, and when any of said inhabitants makes a homœopathic prescription his lease shall be confiscated; this being done that the spotless white robes of ye other inhabitants of ye Hall of Virtue shall not be sullied.

THE FOLLIES OF DETAIL MEN.

THE men sent on the road for detail work by pharmaceutical houses may be divided into two classes: 1. Those who represent houses which manufacture goods of their own invention, and who are for the most part men of ability and have been well trained. They make detail work a business. 2. We find a class of men who have run the gamut of professions and trades, successful in nothing they have undertaken. They are detail men for a small pittance. They are not properly qualified for interviewing physicians. They make themselves a daily nuisance to busy practitioners. It is of this class of detail men to which we wish to call attention. They are the most numerous and for the most part represent firms which live by piracy on those with brains. The extent to which these fellows may exhibit bad breeding may be illustrated by the following incidents:

Not long ago, we were busily engaged with a patient in our office, when a man called, stating that he was in a hurry, and sent in his visiting card, asking to see the doctor immediately. We necessarily responded to such an urgent request. The gentleman in question then proceeded to tell us that he was the head of a certain drug firm, that he had called with a few samples, etc., etc. We replied: "You are in a hurry and we are busy, so we will excuse you."

One morning precisely at 10 o'clock, as we were leaving the office to hold a lecture at the college, a man called. He wished to interest us in a certain book. We explained that he must come again, as we could not stultify ourselves by lateness. To our surprise, the importunate individual refused to postpone the interview and endeavored to force us to remain by stepping inside. We left him there and went our way. He was honest and did not steal anything.

One morning, as we were leaving the office, a detail man called. We explained that he would have to call again, as we had a consultation not far away at 10.15. We showed him our watch, indicating the time at 10.10. "O," he said, "you cannot make it anyhow, so you might as well wait and see me." We told him to get out, and do it quickly, and that he need not call again.

The man who aroused us most to anger was one who called in the Fall and during the dinner hour. He was informed that the doctor was at dinner; he was asked for his card, and requested an interview without any delay. We were carving the turkey at the time, but responded to the urgent call. On entering the office, the caller stepped forward with a sample in one hand, a commercial card in the other, and said: "I represent ——." He got no further in talk.

Of course, the above all represent extreme examples of bad breeding among members of a business which has as much right to exist as any other. The work is honest and requires ability. It is not work to be put in the hands of renegades from other callings. To send a fool on detail work is as silly as giving a child a loaded pistol for a plaything. Somebody is sure to be hurt.

A more frequently encountered nuisance concerning detail men is found in those who have been taught to sing a stereotyped interview. Their work is counted by their employers on the basis of the number of physicians' cards they can collect and samples they can distribute.

THE ANÆSTHETIST.

WE well remember the time when it was thought that anyone could administer an anæsthetic, and when we saw the surgeon's attention distracted between the details of his operation and the supervision of the anæsthetist. Now, however, in many medical schools, though unfortunately not in all, a regular course on anæsthetics finds place in the curriculum, and every graduate is supposed to have at least a working knowledge of this important subject, and to be able to assist a surgeon, if called upon to do so, when the help of a more competent and experienced anæsthetist is not available.

Here, as elsewhere in the medical field, we find the same necessary tendency to specialization, and some have devoted more time to the study and practice of this branch than others, and set out to become recognized adepts and experts. It is not long, however, before they become discouraged and throw up their specialty, declaring there is nothing in it, nothing but

hard work and responsibility in the present, and no prospects of future betterment. Indeed, this seems to be so much the case that, as we have reason to know, a selection of a suitable anæsthetist for hospitals has become a difficult task, not by reason of the numbers of applicants, but on account of the fewness of available men.

Looking at the subject from a professional standpoint, it is evident that as at present understood, the position of anæsthetist is, as far as the life of the patient is concerned, in many cases if not in all, as responsible an one as that of the surgeon. In former times he could well be regarded merely as an assistant, one who himself assumed no responsibility and who, therefore, occupied a subordinate position. Now, however, the anæsthetist proceeds with his part of the work independently of the operator, and the latter feels justified in devoting all his attention to the operation, relying upon his skill and experience to contribute their part to success. Looking at the subject from a commercial point of view, it is evident that the remuneration formerly deemed sufficient can no longer be justly regarded as commensurate with the skill and knowledge required. To quote from a paper on "The Relation of the Anæsthetist to the Patient and to the Surgeon," by Dr. Goldan (*New York and Philadelphia Medical Journal*, August 22, 1903): "Any measure having for its object greater safety for patient and more successful outcome of the operation was heartily endorsed and commended by the profession, but not so a corresponding increase in fee." The author of the excellent paper referred to, on the basis of numerous personal experiences with various unnamed surgeons in New York—which we fondly hope could not be duplicated in Philadelphia—makes a strong plea for the recognition of the independent position which he believes the anæsthetist should occupy: "The anæsthetist should come into direct relation with the patient. He must assume responsibility and he should examine the patient for himself and choose the anæsthetic." He declares that the inferior position at present generally occupied by the anæsthetist is simply a question of fee; and this he declares he should fix for himself and not allow it to be determined by the surgeon. Just as the surgeon fixes his own fee according to the responsibility assumed, and the difficulties of the operation, so should the anæsthetist regulate his own charges for his work. If it

be said anyone can anæsthetize, so one can say anyone can operate, but the results secured depend much upon the man doing either. "The anæsthetist is from any standpoint upon exact equality with the surgeon, this must be recognized sooner or later, and the signs indicate it now"—"for both by education and training he is his professional equal." Lest he should be thought to exalt too highly his office he asks, "Can too much importance be given a subject into which life itself enters as anæsthesia?" Taught by his own experience he says with much truth, "Where the surgeon for some personal reason charges less than he ordinarily would, there is no reason why the anæsthetist should do likewise. This is one of two instances where the anæsthetist's charges can be more than that of the surgeon. The second one is where the anæsthesia is of far more importance than the operation." He closes his paper as follows: "Complete equality, ethically, professionally, and materially between the anæsthetist and surgeon, is the only solution for the correction of abuses whose only right for existence is usage."

These views may be too advanced for the present time, but their intrinsic truth cannot be denied. All must acknowledge that the final success of an operation may be made or marred by the character of the anæsthesia produced, both as regards shock and the after-effects. Why not, therefore, recognize and accord to the anæsthetist the position which his skill deserves? The adoption and practical application of these views in the future will elevate the subject of anæsthesia to the position to which it is entitled, and will open up a promising field for the would-be specialist, in which he can hope, on the basis of enlarged experience and individual and personal research, to satisfy both his professional ambition and his hope for adequate returns.

STATE BOARD REPORT.

WE desire to call attention to the comprehensive and carefully prepared report of the Pennsylvania Medical Examining Board published below. The report shows in detail the work accomplished by the board since its organization in 1894, and furnishes some very interesting statistics. In commenting upon the better qualifications of the applicants during the last four

years, Dr. Guernsey says: "One of two things seems evident: either those who are poorly qualified fear to try the Pennsylvania State Medical Examining Board; or the colleges are doing better preparatory work. Whichever is the case, Pennsylvania reaps the benefit."

Statistics of the Board of Homœopathic Medical Examiners of Pennsylvania.

June, 1894—December, 1903, inclusive.

At the Annual Meeting of the Board of Medical Examiners Representing the Homœopathic Medical Society of Pennsylvania, Statistics of the work done by said Board during the ten years of its existence, 1894–1904, were presented in his *Annual Report* by the Secretary, Dr. Joseph C. Guernsey, as follows:

Fellow Members: We now come to a portion of this Report to which I invite your closest attention. Ten years ago "The Medical Act" of Pennsylvania became operative, under the provisions of which this Board was created to perform a special function. Considering it a matter of interest to know precisely what work has been accomplished since its organization, April 3, 1894, to the present time, June, 1904, your Secretary has prepared the following Statistics.

Table A shows the number of "Applicants" at each Examination held by this Board since June, 1894; the General Average of those examined (which includes successes and failures); and the Rank of each examination. You will see that twenty-one examinations have been held; the highest general average was 87.45 obtained in June, 1901; the lowest general average of any class examination was 71.33 in December, 1897.

A

Date.	Number Examined.	General Average.	Rank.
June, 1894.....	43	77.02	18th
October, 1894.....	5	78.98	16th
February, 1895.....	8	82.49	10th
June, 1895.....	38	82.44	11th
December, 1895.....	13	85.92	4th
June, 1896.....	64	82.37	13th
December, 1896.....	8	84.07	5th
June, 1897.....	57	86.13	3rd
December, 1897.....	9	71.33	21st
June, 1898.....	57	76.87 (Failed 22)	20th
December, 1898.....	20	82.60	9th
June, 1899.....	51	79.99	14th
December, 1899.....	11	82.39	12th
June, 1900.....	30	82.64	8th
December, 1900.....	10	77.42	17th
June, 1901.....	38	87.45	1st
December, 1901.....	9	77.32	19th
June, 1902.....	52	86.32	2nd
December, 1902.....	6	79.02	15th
June, 1903.....	60	84.02	6th
December, 1903.....	12	83.68	7th
Total, 21.	Total, 601		

Table B shows all the Medical Colleges from which the applicants came; the number of applicants from each College; the number passed and failed also the percentage passed and failed from each College; finally, the number of applicants, and their Colleges, who "withdrew" from an examination prior to its completion.

B

June, 1894—December, 1903, inclusive.

College.	Number Examined.	Number Passed.	Number Failed.	Percentage Passed.	Percentage Failed.	Number Withdrew.
1 Boston University School of Medicine	12	10	2	83.33	16.67	.....
2 Chicago Homœopathic Medical College.	14	12	2	85.72	14.28	.....
3 Cleveland Homœopathic Medical College.	76	53	23	69.74	30.26	2
4 *Cleveland University of Medicine and Surgery.	24	12	12	50.00	50.00	.....
5 Dunham Medical College and Hospital, Chicago.	2	1	1	50.00	50.00	.....
6 Hahnemann Hospital College, San Francisco.	1	0	1	0.	100.	1
7 Hahnemann Medical College and Hospital, Chicago.	10	8	2	80.00	20.00	.....
8 Hahnemann Medical College, Philadelphia.	435	390	45	89.66	10.34	3
9 Hering Medical College, Chicago.	2	2	0	100.	0.	.....
10 Homeopathic Medical College University of Michigan, Ann Arbor.	1	1	0	100.	0.	.....
11 New York Homœopathic Medical College and Hospital.	4	4	0	100.	0.	.....
12 New York Medical College and Hospital for Women.	3	3	0	100.	0.	.....
13 Pulte Medical College, Cincinnati.	6	5	1	83.33	16.67	.....
14 Southern Homeopathic Medical College and Hospital, Baltimore.	8	5	3	62.50	37.50	.....
15 Southwestern Homeopathic Medical College, Louisville, Ky.	1	1	0	100.	0.	.....
16 †Western Homœopathic College, Cleveland.	1	1	0	100.	.....	.....
17 Trinity University, Toronto.	1	1	0	100.	.....	.....
	601	509	92	84.69	15.31	6

* Now known as the "Cleveland Homœopathic Medical College."

† Now known as the "Cleveland University of Medicine and Surgery."

Table C shows the very *lowest personal* averages, to wit, all those below 50 and the Colleges from which the recipients were graduated.

Surely no one fact proclaims with more eloquence the need of Examining Boards to spur Medical Colleges to better work than these averages. I rejoice to say that there is an apparent improvement on the part of Medical Colleges in teaching and preparing their students for the practice of medicine. For, while from 1894 to 1900 students were permitted to graduate so illy instructed as these averages show, from June, 1900, to June, 1903, the lowest average was 58.28—a decided gain! In June, 1903, however, an applicant again received an average below 50—viz. 49.14.

One of two things seems evident: either those who are poorly qualified fear to try the Pennsylvania State Medical Examining Board; or, the Colleges are doing better preparatory work. Whichever is the case, Pennsylvania reaps the benefit.

C

Date.	General Average.	College.
October, 1894,	45.43	Cleveland Univ. Med. and Surg.
December, 1895,	49.00	Cleveland " " " "
December, 1895,	40.43	Hahnemann, Philadelphia.
June, 1896,	48.28	Hahnemann, " "
December, 1897,	47.71	Cleveland Hom. Med. Coll.
June, 1898,	41.28	Hahnemann, Philadelphia.
June, 1899,	47.71	Cleveland Hom. Med. Coll.
June, 1899,	46.00	Southern, Baltimore.
June, 1900,	43.29	Hahnemann, Philadelphia.
June, 1903,	49.14	Cleveland Hom. Med. Coll.

D

We now turn to the bright side of our figures and view, in Table D, the very *highest personal averages* since 1894, taking all those above 95—in itself a very high mark—name of recipient and College of graduation.

Date.	Name.	General Average.	College.
February, 1895,	G. A. Van Lennep, M.D.	96.71	Hahnemann, Philadelphia.
June, 1895,	R. J. Abele, M.D.	98.86	" "
December, 1895,	A. Cookman, M.D.	99.71	" "
June, 1896,	A. Korndorfer, Jr., M.D.	98.71	" "
December, 1896,	Anna D. Varner, M.D.	96.57	Cleveland Hom. Med. Coll.
June, 1897,	John E. Dehoff, M.D.	97.28	Southern, Baltimore.
June, 1898,	Oscar E. Boericke, M.D.	95.43	Hahnemann, Philadelphia.
December, 1899,	R. H. Woodruff, M.D.	96.00	" "
June, 1901,	Roy C. Cooper, M.D.	96.43	Boston Univ. School Med.
June, 1902,	John E. James, Jr., M.D.	98.28	Hahnemann, Philadelphia.

E

Table E presents a general Summary of all the foregoing.

June, 1894—June, 1904.			
Total number of Examinations	in 10 years,	.	21
" " " applicants examined	"	.	601
" " " " passed	"	.	509
" " " " failed	"	.	92
General average of all applicants examined	"	.	82.33
" " " " passed	"	.	85.48
" " " " failed	"	.	64.89
Total number examined in 10 years,	.	.	Men 565, Women 36
" failed once,	.	.	" 48, " 5
" " twice,	.	.	" 8, " 3
" " three times,	.	.	" 3
" " four " "	.	.	" 2
Highest, personal, general average,	.	.	Men 99.71
" " " " " "	.	.	Women 96.57
General average attained by 565 men, 10 years,	.	.	82.65
" " " 36 women " "	.	.	77.26

The above Statistics are absolutely correct, each figure and detail having been proven and verified. They have cost much time and great labor but I felt that in no way could the ten years' existence of this Board be better exhibited and emphasized than in stating just what work it has accomplished. Whether it would be advisable to publish them in Medical Journals is a matter for our consideration. I am in favor of doing so. By the Medical Act of Pennsylvania all records of the Medical Examinations are kept on file and are open for public inspection. Any person can go through the Records at Harrisburg and can collect and publish any or all of the facts here given. I would rather have them come from us direct in their present accuracy and entirety than some day to have an outsider publish a garbled and incorrect version."

JOSEPH C. GUERNSEY, A.M., M.D.,

Secretary.

After hearing the above Report the Board of Homœopathic Medical Examiners of Pennsylvania unanimously voted that Dr. Joseph C. Guernsey be authorized to publish the Statistics as given above.

PLACENTAL TUMOR.—Lobhardt says, on account of the relatively infrequent occurrence of these growths, his case merits attention. It concerns a VII. grvida whose previous history contains nothing abnormal. At the end of the eighth month of this pregnancy she was taken one morning with profuse uterine hæmorrhage after a railroad ride of a half hour's duration. On going to a hospital immediately, the hæmorrhage ceased after rest in bed. Fœtal heart-sounds were still audible, but weak. During the afternoon it became evident that her anæmia increased, the abdomen was more tense, and the fœtal heart-sounds had ceased. In the evening the patient was spontaneously delivered of a dead child, and with the delivery of the placenta appeared many coagula. A slight post-partum hæmorrhage also set in.

Examination of the placenta showed the presence of a tumor situated near the placenta margin and attached to the maternal side by a small pedicle, and lying imbedded in the placental tissue, though mostly covered by decidual cells. Microscopic examination disclosed the tumor to be a hæmatoma and that it had compressed the villi of the placenta. The surroundings of the tumor showed marked angiomatous changes. The growth is called a chorioma, according to Dienst's recent article (wherein he could collect only forty-six cases). Regarding the origin of the growth, it seems probable that a separation took place within the upper layers of the decidua, which was filled out by a hæmatoma. The case is also interesting, since chorial angioma does not usually show a tendency to the formation of hæmatoma, although post-partum hæmorrhage does occur, due to a defective separation of the placenta. In this case, however, there was a premature separation, which caused the hæmorrhage and fœtal death.—*Beiträge z. Geb. u. Gyn.*, Bd. VIII., 185.

GLEANINGS.

ON THE DISAPPEARANCE OF ENDOCARDITIC MURMURS IN CHILDREN.—Dr. V. E. Ovazza asserts that though there are some doubtful cases, yet many, on the contrary, are known where cardiac murmurs following endocarditic processes, mostly mitral, have disappeared in the course of time. Of late years, such cases are not brought forward as clinical curiosities, but it is taught as possible as a result of longer experience and observation. Two cases observed by the writer were followed from the diagnosis of the endocarditis through the time of the residual murmur, as well as the long period of its gradual attenuation and its consequent complete disappearance. It is worthy of note that in one the systolic souffle was most distinct for seven years, when it disappeared and had not reappeared for seven years. With the knowledge gained from these cases, and from a study of those reported by others, one may say that during any time up to puberty a mitral murmur may disappear.—*La Nuova Rivista Clinico-Terapeutica*, No. 4, 1904.

Frank H. Pritchard, M.D.

RHYTHMIC TRACTIONS OF THE NOSE, ANOTHER METHOD OF RESTORING PERSONS TO CONSCIOUSNESS.—Dr. D. Panyrek asserts that rhythmic tractions of the nose, which consist in raising and lowering this appendage either by the nose seized between the fingers or held in a compress dipped in vinegar, to be a serviceable means of reviving, in one or two minutes, persons who have lost consciousness. He has employed this means for the last three years in cases of asphyxia during surgical anæsthesia and he has always succeeded. It may also be useful in cases of poisoning by carbonic acid gas or narcotics as well as in mild forms of shock. Artificial respiration at the same time should not be neglected. It is contraindicated in wounds of the nose, in grave traumatism of the cranium as well as in diabetic and uræmic coma. As to its method of action he thinks that sudden irritation of the sensitive nerves of the nose acts reflexly on the vasomotor nerves of the cortex, the respiratory centre, etc.—*Ibidem*, No. 21, 1904.

Frank H. Pritchard, M.D.

ON THE SYMPTATOLOGY OF GOUTY PARALYSIS.—Dr. J. Thomayer communicates four cases of this disease which is quite seldom noted in medical literature. The first was a man of 38, who for some time had experienced pains in all four limbs which simulated a commencing polyneuritis, when all of a sudden he became completely paralyzed in both lower limbs and the right arm. After having persisted for two days, these symptoms wholly disappeared in one night to be replaced by an attack of gout in several joints, and especially in the great toe. During the further course of the disease at several times he suffered from hyperæsthesia of the peripheral nerves, followed by motor paralysis; the paralysis would then disappear and an attack of gout take its place. The second case was that of a man of 29 years, obese, having a tophus in the helix of the left ear and affected with gouty nephritis, in

whom an attack of gout, affecting the metatarso-phalangeal articulations of the third and fourth toes of the right foot and the external condyle of the left femur, was associated with a paralysis of the muscles of the anterior portion of the left thigh and of the muscles of the right leg.

The third case was in a woman of 51 years who had already experienced fugitive and transient attacks of paresis of the extremities; she was admitted to the hospital for polyarticular gout. After some days the acute symptoms left her, when she was seized with complete paraplegia of the lower limbs and paresis of the upper ones. These manifestations continued for a long time after the joint phenomena of the gout had vanished.

Finally, in the fourth patient, aged 42, an inveterate gouty subject, with multiple tophi, the paralysis involved the whole left arm. It had been preceded by very intense pains in this limb. It was not long before this was followed by an attack of gout affecting the metacarpo-phalangeal articulation of the right index-finger. Though the paralysis in these four cases appeared with neuritic characteristics, yet it would be too much to suppose that these motor troubles were of actual neuritic origin, with disintegration of the nerve-fibres, for they are of too short duration. The rapidity with which the first patient regained the use of his paralyzed members would lead one to assume that he was affected with some poison which involved chiefly the peripheral nerves. Contrary to the opinion of some, and particularly of Buzzard, he does not think it necessary to attribute these attacks to deposits of urates. From experiments which he has made on frogs he finds that uric acid, even if placed in direct contact with the bare nerve, will not produce a paralysis.—*La Semaine Medicale*, No. 21, 1904.

Frank H. Pritchard, M.D.

ECCHYMOTIC MEASLES.—U. Monnier, of Nantes, having gone through an epidemic of measles, had under his care three cases of the ecchymotic variety. As is known the ecchymoses usually appear from the second to the fourth day of the disease by hæmorrhagic transformation of the measles-exanthem; hence, it is purely and simply an essentially benign hæmorrhagic measles, without visceral hæmorrhages, and whose diagnosis, as a rule, offers but little difficulty. But, at times, the hæmorrhagic blotch is seen first and then the diagnostic difficulties are interesting. He relates an example: a little girl of 7 was admitted to the whooping-cough ward for a tussis convulsiva which seemed on the decline. The following morning she seemed depressed, refused to eat, had a slight rise in temperature; the day after, her body was covered with little petechiæ which simulated those of purpura; there was no lachrymation, no papules, no exanthem, no Koplik's spots. In another day dispersed around the purpuric patches was a distinct measles-exanthem which was characteristic. These ecchymoses extended to the neck and on to the right arm while the morbilli eruption pursued its normal course. In such cases a diagnosis is almost impossible until the typical eruption appears. In the beginning, with absence of serious general signs, one may exclude infectious purpura, but only the existence of a concomitant epidemic of measles would enable one to suspect the nature of this pre-morbillous purpura.—*La Semaine Medicale*, No. 19, 1904.

Frank H. Pritchard, M.D.

NERVOUS COMPLICATIONS OF INFLUENZA.—(Mix.)—(a) Encephalitis, secondary to influenza, exists in two types, simple inflammatory or hæmorrhagic

and purulent. Simple encephalitis, though a rare complication, is doubtless a cause of an important group of paralyses as yet unexplained. The cerebral disease is due to the direct influence of toxins or bacteria on the cerebral cortex, and not to such gross lesions as hæmorrhage or embolism. Encephalitis is, therefore, a justifiable term for such lesions. That influenza is the cause has been proven by the work of Pfuhl, who, in three cases, found the bacillus partly in the membranes, partly in the cerebro-spinal fluid, and partly in the brain substance. The bacilli were also found in foci of softening in the cerebrum and cerebellum, both microscopically and by culture. Nauwerck believes in the existence of an acute hæmorrhagic, non-purulent encephalitis. All of his findings were corroborated by cultures.

Pathology.—There is an acute, often apoplecticiform, encephalitis, showing sharply demarcated foci of various sizes from a cherry-pit to a pigeon's egg. The location is in the gray matter, usually on the cerebral cortex. Often both hemispheres are involved. Microscopically, these foci consist of numerous fine, closely arranged hæmorrhagic points, between which the tissue is more or less softened, and varies in color from gray to grayish-red. By secondary hæmorrhages into the softer area, the appearance is much similar to hæmorrhage (primary).

Symptoms.—Onset is usually sudden and apoplecticiform, closely resembling an attack of ordinary hemiplegia, but there is more often a chill and temperature. The onset again may be slow, with vertigo and headache. Other general symptoms are delirium, loss of consciousness, coma and generalized convulsions. The focal symptoms, of course, depending upon the location of the lesion. Disturbances of motion resemble Jacksonian attacks. Occasionally a cranial nerve is involved, as the facial, trigeminal or hypoglossæ.

(b) Meningitis. This refers alone to those primary cases occurring at the height of the influenzal infection, and being due to direct invasion of the membranes by the bacilli. This may be divided into (1) basal, (2) cortical. Depending upon the location of the maximum amount of inflammation are the symptoms.

(c) Myelitis. Just as influenza may affect the substance of the brain, producing an encephalitis, so it may affect the substance of the cord, producing an analogous myelitis. The effect may also be selected in that it involves only certain tracts of the cord.

(d) General convalescent toxic effects subdivided as follows: (1) neuralgia, functional; (2) myalgia, functional; (3) multiple neuritis, organic; (4) focal neuritis, organic.

(e) Para- and meta-grippal diseases, as epilepsy, neurasthenia, hysteria, tetany.

(f) The psychosis of influenza. The patient's mood is usually depressed; rarely is there an exaltation; melancholia, with stupor, abject fear, refusal of food and paranoias. Mania at times develops. Lastly comes that class of cases dependent upon nerve exhaustion, and which usually do recover.—*Medicine*, May, 1904.

William F. Baker, A.M., M.D.

INFLUENCE OF DAYLIGHT IN THE PROGRESS OF MALARIA.—(Busch.)—Dr. King, nearly twenty years after he put forward the theory of transmission of malaria by mosquitoes, has brought out a new hypothesis. Dr. King thinks he can explain a number of the clinical and epidemio-logical peculiari-

ties from the supposition that sporulation of the plasmodium malariae cannot take place in the dark, but only in the light, more especially the red light. He therefore proposes treating malarial patients in dark or in rooms with violet or purple hangings, similar, in other words, to the Finsen treatment of smallpox.

The writer, after reviewing the results of many experiments, says: "The surprisingly strong microbicidal effect of which rays, otherwise fairly inactive at these and later experiments, have proved themselves possessed, with regard to 'sensitized' micro-organisms, has led me to look for the cause of the special effect of quinine preparations on malarial patients in the power of these preparations to make the plasmodium sensitive, so that the latter are destroyed or weakened under the effect of daylight."

This supposition is based on:

1. The special effect of quinine in malaria can hardly be explained as a direct outcome of its toxicity with regard to the plasmodium, although this undoubtedly is very considerable; and if we look for an explanation of this effect, we must not leave out of consideration a peculiarity so distinct as the power to make micro-organisms sensitive in relation to light.

2. Quinine preparations have decided sensitiveness-arousing qualities. Uhlman's investigations show, for instance, that paramæcææ, which are placed in solutions of quinine, 1 : 20,000, first die after about five hours when standing in the dark, while they are killed in eight minutes if allowed to sit in the sunlight under conditions which have no baneful effect on paramæcææ.

3. According to Jacobson's and Dreyer's experiments, light, even after having passed through a layer of animal tissue, can exercise its microbicidal effect upon the sensitive-made organs. The depth at which it may be possible to obtain an effect will, of course, depend upon the intensity of the light.

4. The tissues of the human body are pellucid, and even if only a comparatively small portion of the surface of the body is exposed to light, the blood, with its plasmodium, will, on account of its continuous circulation, all the same be affected by the light. If the correctness of the views put forward be confirmed, then it would be advisable to treat malarial patients in sun baths, electric-light baths, etc.

Lastly, the following clinical suggestion is offered:

"*Daylight can increase the favorable effect of quinine preparations upon the malarial parasite.*"—*The American Journal of the Medical Sciences*, July 15, 1904.

William F. Baker, A.M., M.D.

REFLEX DISTURBANCES FROM PREPUTIAL ADHESIONS.—Dr. R. M. Simon relates the histories of three cases where every therapeutic measure failed to relieve certain symptoms, which were finally definitely cured by separating preputial adhesions.

The first was that of a little male child who, 18 months of age, well nourished and growing normally, but who suddenly found it impossible to walk, for every attempt to take a step would bring on violent pains in one hip. A coxitis was thought to be beginning, which diagnosis was rejected by a competent surgeon. Dr. Simon seeing the child and arriving at no definite diagnosis thought the trouble to be due to a reflex irritation. Intestinal worms being excluded he examined the penis. There were preputial adhesions, the

prepuce itself was abnormally long and circumcision was done when all the morbid symptoms disappeared.

The second case was that of a boy of 14 years who was subject to intense and obstinate intestinal colic. Thinking that possibly the patient had been poisoned by lead he treated him appropriately, but with as little success as others had done. Examining his penis the glans was found adherent to his prepuce. These once removed, the colic vanished, without treatment.

Finally, in the third case, a child of 3 years had for some time been in the habit of awakening in the night, crying out aloud and complaining of pain in the abdomen. This trouble recurred every night until the poor child actually suffered from loss of sleep, while his general health began to suffer. Treated at first as dyspeptic, but unsuccessfully, the child was later operated on for preputial adhesions and stricture of the meatus. This definitely cured his disease. In this latter case the writer thinks that the point of departure of the pain was due to a desire to empty the bladder which led to a certain degree of erection and turgescence of the penis and caused pain on account of the adhesions. This child being still young could not well localize its sensations of pain. In the two others the disturbance was evidently of a reflex nervous nature. These cases demonstrate how important it is to make a complete examination of our patients whenever we are confronted with symptoms which do not seem to be brought about by their usual causes.—*La Semaine Medicale*, No. 20, 1904.

Frank H. Pritchard, M.D.

A CASE OF BARLOW'S DISEASE WITH AN ODD SYMPTOM.—Dr. S. Weiss presented before the Berlin Gesellschaft fuer Innere Medicin und Kinderheilkunde a child of 4½ months, on whose cheek during the course of five hours a firm and dense growth had appeared. The overlying skin was bluish-black. It was punctured and blood withdrawn. A second extravasation was seen under one eye. Two days after these symptoms there were subcutaneous and submucous hæmorrhages under the mucous membrane of the buccal cavity. The child's skin was white and the skull presented cranio-tabes. Though breast-fed, yet a diagnosis of Barlow's disease was made.—*Berliner Klinische Wochenschrift*, No. 13, 1904.

Frank H. Pritchard, M.D.

ANOTHER METHOD OF STERILIZING CATGUT.—Dr. Salkindsohn recommends a modification of Bloch's method of sterilizing catgut. The gut is wound on glass rolls, is soaked for eight days in a solution of tincture of iodine, 1 part, spiritus vini (50 per cent.), 15 parts. It is then ready for use. It is wholly sterile; does not swell up, roll, stretch, break easily, nor tear.—*Centralblatt fuer Chirurgie*, No. 3, 1904.

Frank H. Pritchard, M.D.

A CASE OF APHTHOUS LARYNGITIS.—Dr. Zuppinger has observed six cases of aphthous stomatitis out of nine hundred cases of stomatitis of all varieties. The youngest child was 3 weeks of age, the oldest 18 months old. The symptomatology consists in pain on swallowing, hoarseness, painful cough, in older children, while the younger infants also have signs of laryngeal stenosis. Then the cough sounds croupal. The obstruction may become sufficient to require tracheotomy or intubation.—*Wiener Klinische Wochenschrift*, No. 5, 1904.

Frank H. Pritchard, M.D.

ON TREATMENT OF ANEURYSMS OF THE AORTA.—Dr. Forlanini has observed two cases of aortic aneurysm which go to explain why it is that some cases are favorably influenced by gelatin and such measures, while others are not. In one the blood-pressure was high; in the other low. He distinguishes three conditions: those with lesions of the peripheral arteries, with consequent arterial high tension, and cases with normal or slightly increased pressure. In overtension of the bloodvessels he administers gelatin by hypodermic injection and veratrum viride internally, which is the best means of lowering blood-pressure; in the other form from syphilis he gives gelatin and the iodides. The first patient was notably improved, the second not at all.—*Nuova Rivista Clinico-Terapeutico*, No. 4, 1904.

Frank H. Pritchard, M.D.

CHRONIC TRACHOMA AMENABLE TO THE X-RAY.—An artist's helper, age 23, had been suffering from granulated lids for nine years. She had been in the hands of almost every specialist in Baltimore; has been operated upon four times, twice with grattage and twice by avulsion; has had the usual treatment with astringents and caustics.

Both lids and palpebral mucosa are thick and reddened; there is a mucopurulent discharge, much photophobia and lachrymation; there are lines indicating scars from previous operations, and typical trachoma granules. We began treatment through closed lids, with cautious tentative three-minute exposures, repeated first every ten days, then five days, then tri-weekly. The exposures were given at a distance of twelve inches and the spark gap was one-sixteenth of an inch. These treatments caused excessive lachrymation, which diminished on successive exposures, and finally ceased.

After the sixth treatment the patient voluntarily declared that she was more benefited than by her nine years' previous treatment. The eyes pained less, the discharge lessened, she was able to do away with her dark glasses, and could read a little. The time of exposure was gradually lengthened to eight minutes, but owing to dermatitis was shortened and settled down to five minutes; the spark gap increased to one inch. We used Heinze's twenty-inch coil, modified Wehnalt interrupter, giving 2800 interruptions a minute, $2\frac{1}{2}$ amperes of 250-volt direct current.

By the twentieth exposure one, and by the thirty-fifth both eyes were entirely free from trachomatous granules. The mucous membrane is still red, but free from swelling and discharge. They still show the criss-crossing of the scars from grattage. There are absolutely no trachomatous granules, photophobia is entirely absent, and the patient uses her eyes constantly without discomfort. Henry F. Cassidy, M.D., and Francis C. Bayne, M.D.—*Jour. E., E. and T. Disease*.

William Spencer, M.D.

THE EFFECT OF NEURASTHENIA ON THE EYES.—Most prominent symptoms: asthenopia; a number of small vessels may be seen sometimes around the macula; tender spots are frequently found on the eyebrows, temples, head and spinal column; ringing sensation in the ears; reflexes heightened; maybe tremor, especially when attention is called to extend the hands; muscular twitching about the lids and extremities, often a small error of refraction accompanied by muscular defect will give more trouble than a high degree.

The chief difficulty in diagnosing is found in differentiating between symp-

toms due to neurasthenic condition and those to some slight error of refraction or unbalance. Neurasthenic troubles are fleeting and recurrent, while the organic diseases are stable. In neurasthenic patients esophoria may appear, and in a moment the symptom is changed to exophoria, or to other muscular insufficiencies. The reflexes are generally increased in neurasthenia, and as a rule diminished in organic diseases. It is distinguished from hysteria in that neurasthenia has not the emotions and convulsions. After recovery it sometimes takes a year or more for the eyes to regain their normal tone. Make a thorough examination of the patient's eyes; first without a mydriatic, then under a mydriatic, and a third time, after the mydriatic is out, to see if all the examinations coincide. Operations on the muscles should not be performed until treatment by the physician or neurologist has failed. S. B. Muncaster, M.D.—*Ophth. Record*.

William Spencer, M.D.

DIONINE.—The dionine reaction occurs only in eyes presenting pathological conditions (not including the refraction anomalies). In healthy eyes it acts only as a foreign body. The degree of reaction differs with the affection, but is always most marked at the primary instillation; grows less at each succeeding instillation and fails to occur after from four to six days, to recur with the primary intensity if used again after several days' interval.

In the variation of its reaction lies the reason and the explanation for its variable therapeutic results; the physiological effect being that of a lymphagogue. The greater the reaction the better the results obtained, in diseases of the cornea and of the anterior section of the eye. To the curative effect of dionine the author attributes the fact that in six cases of suppurative keratitis and ulcer of the cornea, with hypopyru, cure was effected without the use of the cautery. In a case of acute inflammatory glaucoma the ocular, as well as the neuralgic pain, was relieved and did not recur with great severity.

The result is attributed to diminution of intravascular tension. Its greatest value is in the treatment of corneal opacities, either in the inflammatory or quiescent stage, for the treatment of which previous methods and remedies have been unsatisfactory. He considers it important that the drug be employed intermittently—using four to five days in combination with atropine and calomel insufflations, then omitting it, but continuing the other measures four to six days. As to its employment, a speck of the powder is more active than a 5- or 10-per-cent. solution. Richard Bloch, M.D.—*Annals of Ophthal.*

William Spencer, M.D.

RELATIONS OF THE ALIMENTARY CANAL TO PELVIC DISEASES.—Carr (Washington, D. C.) has presented some suggestions which should receive the attention of those whose views respecting the ætiology of disease have been largely influenced by the success of the antiseptic method and by whom bacterial infection is apt to be accorded a preponderating importance to the exclusion of other ætiological factors. It is quite probable that some valuable advances in general medical science may be looked for along the lines of a more accurate determination of the factors involved in immunity, and the failure of antiseptics in conditions, after infection exists, has doubtless stimulated such researches.

Carr discusses the several ways in which gastro-intestinal disorders may become potent factors in causing or maintaining disease of the pelvic organs,

and classifies them under the three heads of chemical abnormalities, mechanical disturbances, and bacterial invasions. In gastro-intestinal catarrh, there is abnormal secretion which leads to faulty digestion and favors bacterial activity. Then the absorbing cells are sick cells, and in addition have an unusual amount of work to do because they have an abnormally complex and poorly prepared material to absorb. They do their work badly, and as a consequence the blood plasma is furnished with a small amount of nutritive material of poor quality and loaded with more or less poisonous materials in addition. All the cells of the body show the effect of this condition in diminished or perverted function. We have only to know the normal function of a cell to predict the result. Motor cells send out feeble impulses to muscles. Sensory cells give perverted sensation of pain when stimulated, connective tissue cells become lax, the spongioplasm loses its elastic strength and power of holding other tissues in place. The weight of the stomach, intestines and uterus cause a gradual stretching of the connective tissue that should hold them in place. The epithelial cells of the uterine mucosa secrete a perverted and irritating mucus, and lose their resistance to bacteria. The heart muscle, as well as the heart nerves, become weak, and the muscular fibres of the arteries relax. Venous congestion follows and augments any local disorder that may have started. The nerves and the mucous membranes often seem to feel the condition most. Conjunctiva, pharynx and vagina all show the same flabby, congested condition.

All of us have had such women come for treatment of leucorrhœa, backache, dragging sensations in the pelvis, headaches, constipation, and sometimes more serious pelvic diseases. Such a condition allowed to go on is likely to lead to endometritis, salpingitis and other serious inflammations, simply because the tissues have no resistance to germs that gain entrance into the vagina and gradually extend to the uterus, tubes and peritonem. He believes that a woman who has a good digestion and good general health will never be a sufferer from chronic uterine catarrh. Her catarrhs will either get well or result in severe acute inflammations. He believes there is little use in curetting the flabby catarrhal cases, or give them any local treatment, unless the digestion can be simultaneously improved. The author also refers to some recent careful examinations of a large number of cases which show that most cases of disease in the posterior part of the pelvis, not gonorrhœal, are of intestinal origin, and begin in catarrhal conditions and ulcer of the lower bowel. If this be true, it should certainly lead to a careful examination of the rectum in pelvic disease.—*Amer. Jr. Obs.*, 1904, June, 799.

Theodore J. Gramm, M.D.

A MODIFIED OPERATION FOR SUSPENSION OF THE UTERUS.—Spaeth (Hamburg) has proposed a modification of the usual operation of suturing the retrodisplaced uterus to the abdominal wall. The occurrence of metritis, dysmenorrhœa, disturbances of pregnancy and delivery, hernia and ileus after ventrofixation, he proposes to obviate by operation upon the round ligaments, in such a manner that the risk of hernia subsequent to the ordinary Alexander-Adams operation is also avoided. The procedure is as follows: The abdomen is opened by the transverse fascial section according to Pfannenstiel. The slightly curved incision, whose convexity is directed toward the symphysis, is made within the upper part of the hairy portion of the mons veneris. The

fascia is divided somewhat nearer the symphysis and further loosened upward by dissection, and the incision extended outward to the region of the external inguinal ring on both sides, after which the abdomen is opened by median incision in the linea alba. The uterus is then freed from any adhesions in the posterior part of the pelvis, and any adnexal tumors are extirpated or resected. The right round ligament is then seized with a slightly curved slender clamp at the point where it leaves the abdomen and enters the inguinal ring, and is pushed out, and where the fascia covers its attachment this tissue is divided and the ligament still further drawn out. The same procedure is repeated on the left side. By traction upon both ligaments the uterus is then pulled forward until it touches the anterior abdominal wall, as may be seen from within, and the ligaments fastened with buried silkworm-gut or silk sutures to the muscle and fascia, and these sutures at the same time close the ring. The abdomen is then closed with continuous catgut suture in the peritoneum, interrupted catgut in the recti and pyramidales, and in the fascia. A loup of both round ligaments is then sutured upon the fascia, after which the wound is closed. Three cases are reported.—*Centralbl. f. Gyn.*, 1904, 542.

Theodore J. Gramm, M.D.

THE PREVENTION OF FEVER DURING THE PUERPERIUM.—Zweifel has recently delivered an interesting address on this subject in which, after briefly referring to the development of the antiseptic method, by the application of which the high puerperal mortality has been abolished, he mentions the latest measure of that method, namely, the use of rubber gloves, whereby infection by means of the hands has been excluded. And yet fever during the puerperium has not been entirely eliminated. Attention has, therefore, been directed to the patient herself and the cleansing of her skin; but under ordinary conditions there is not much danger from this source. There are, however, accidental opportunities for infection from the woman's own self-examination, the use of unclean sponges and cloths, and cohabitation toward the end of pregnancy. After all, however, while the mortality has been very materially diminished, still fever occurs during the puerperium in spite of the refinements of the aseptic method.

All experiences in the healing of wounds theoretically demands that fever shall no more occur with asepsis of the gravid and parturient woman, but as yet we are far from that ideal condition, and may never fully attain it.

Zweifel has always insisted upon exact hæmostasis and dry asepsis during operations, and he lately applied these principles to obstetrics. If women be examined by means of a small speculum a half to one hour after the delivery of the placenta, the fornix will be found to contain several coagula. These coagula have been removed in a series of cases by means of dry tampons, and the result has shown that the percentage of fever, which for some years has been 19 per cent., now amounts to only 5.7 per cent. when rubber gloves were used, and to 11.5 per cent. when the cleansing was performed only with the disinfected hands. The removal of these coagula in the manner indicated prevents their disintegration or infection by micro-organisms, usually saprophytic, but which might be pyrogenic, and hence he regards the procedure as of great value in diminishing the percentage of febrile puerperium. The percentage above mentioned is the lowest yet obtained.—*Centralbl. f. Gyn.*, 1904, 681.

Theodore J. Gramm, M.D.

THE CAUSE OF HÆMORRHAGE IN UTERINE FIBROIDS.—(Theilhaber and Hollinger.)—Most women having fibroid tumors of the uterus experience no symptoms. After the climaxis these tumors often diminish in size. Many cases are, however, not so harmless. The symptoms mostly complained of are pressure-symptoms, pains and hæmorrhage. The pressure-symptoms are easily understood. The pain is often caused by the uterus contracting in an endeavor to cast off a submucous tumor. The cause of the hæmorrhage is not so manifest. In some cases the tumors, after existing for ten or twelve years with normal menstruation, suddenly become associated with profuse loss of blood, a condition which is probably not brought about by the increase in size. The location of the tumor would appear more likely to cause the increased hæmorrhage, and in some of these cases the tumor is so located that a considerable portion of the myometrium separates the tumor from the uterine cavity. The belief is general that in these cases the symptom is induced by hyperplasia of the endometrium. The authors did not accept this opinion, but were inclined to think that the cause resided in certain changes in the mesometrium, and instituted some examinations in a series of cases.

They found in all cases a material increase in the thickness of the muscular layers, amounting to two or three times that of the normal uterus. Also when menstruation was normal the muscular layers on section appeared predominantly pale red, while if the patient had had profuse hæmorrhage the muscular layers were traversed by numerous thick grayish bands. Many bloodvessels also presented. In only one of the cases did the mucous membrane appear macroscopically changed, and here there were polypi present. In all other cases the mucous membrane was never thickened, as accurate measurements show. There was no hyperplasia. Other marked changes were not present. While there were variations in the number of the glands, in the thickness of the interstitial tissue, and in the number of the round cells therein, yet similar variations were present in the non-hæmorrhagic cases. It could not be observed that inflammatory infiltration of the connective tissue or multiplication of the glands was more frequent in either variety. Opinions vary greatly about the hæmorrhage being due to glandular or interstitial changes; and from this it appears that these changes have no direct causal relation to the hæmorrhage. The authors call attention to the several changes existing at various ages, and also at times varying with respect to the proximity of the menses. They think that greater care should be exercised in noting these factors which normally affect the conditions of the mucous membrane, both in its histological character and in its thickness. They do not accept the oft-repeated statement that the tension induced by the myoma causes an atrophy of the mucous membrane since there was no material difference between the thickness of the mucous membrane over the myoma and that covering the opposite wall.

In the muscular layer, however, they found typical changes in the hæmorrhagic cases. These consisted in a thickening of the mesometrium even recognizable on macroscopical examination. In the non-hæmorrhagic the muscular layer was predominantly red, and traversed by scanty, fibrous connective tissue bands. Conversely in the hæmorrhagic cases the fibrous connective tissue bands were more numerous, and the red tissue scantier. Microscopically in the non-bleeding cases there usually appeared beautiful, large, broad fields of muscular tissues similar to those seen in the puerperal

uterus. The connective tissue surrounding these fields of muscular tissue was rather thin and the strands projecting between the muscular tissue were not numerous and rather thin. In the uteri from hæmorrhagic cases, on the other hand, the fields of muscular tissue are smaller, the surrounding connective tissue thicker, the intermuscular strands are numerous and thicker. The authors believe the conditions simulate those existing in valvular heart disease when compensation becomes impaired. In all cases of myomata, on account of the increased development of bloodvessels, there would be menorrhagia did not the muscular tissue hypertrophy and were the contractions not much stronger during menstruation. Later, in consequence of advancing years, with their attending tissue degenerations and disturbances of nutrition without associated decrease of blood-supply, menorrhagia sets in. It is conceded that this is not the only cause of menorrhagia in myoma uteri, especially not in those cases where the bleeding suddenly occurs, and is followed by months of freedom from hæmorrhage. These patients are of course exposed to the same influences inducing menorrhagia as are other women, such as psychical disturbances, excess in venere, abuse of condiments, and excesses in eating and drinking.—*Arch. f. Gyn.*, Bd. 71, 289.

Theodore J. Gramm, M.D.

THE TREATMENT OF ABORTION.—*Nebesky*, in a lengthy article on this subject, reviews the practice of many Continental authorities, and describes the treatment used in the gynæcological clinic at the University of Innspruch. If the case has advanced so far that prevention is no longer possible, and in the absence of other indications, most obstetricians advise to watch the case closely, but not to interfere. When the cervix is permeable for one or two fingers, two procedures present. Winckel and Muller advise usually to permit a natural termination; while men like Dührssen and others, whose operative proclivities are well known, advise to terminate the case as rapidly as possible by digital or instrumental means. Bumm regards an active procedure called for in clinical cases, while in private practice he concedes the right to use expectant treatment. The indications which at once demand the expectant treatment to be abandoned are infection and severe hæmorrhage. If the former has taken place there is fever or offensive discharge. The advocates of active treatment point to the saving of time and of loss of blood, and say that in emptying the uterus by means of the fingers or instruments the danger of sepsis and subsequent genital disease is much less than after the retention of even small fragments of membranes. This occurrence, by some claimed to be the exception, Dührssen says, is the rule in the non-operated cases. A number of statistics collected from many sources seem to be against operation, but the author points out that very much reliance cannot be placed upon them in view of the varying conditions regarding infection of the cases.

At Innspruch they do not use the vaginal tampon in threatened abortion. Ergot is only given after the uterus is empty. If fever or foul smelling discharge appear, the cases are operated, irrespective of whether the cervix is dilated or not. The uterus is emptied by means of the finger, or with the aid of a dull curette or forceps guided by the finger. If necessary, the cervix is dilated during narcosis. If profuse hæmorrhage exists the cases are treated more conservatively. If the bleeding is profuse or long continued with slow

progress, the cervical canal and vagina are tightly packed with a tampon of iodoform gauze. This remains twenty-four hours, and then on its removal the ovum usually accompanies it. If this does not occur, the cervix is usually found to be dilated and the case may be terminated in an operative way. The tampon must not be used in an infected case. Any indications pointing to retention of membranes demand their removal. These consist in the uterus remaining large and soft, the cervix still dilated, hæmorrhage continuing, and symptoms of infection soon supervene, consisting of fever and foul smelling discharge. The dangers of using the curette are emphasized. In some of the cases the hæmorrhage is so profuse when attempts are made to remove the ovular remains that it is necessary to desist and tampon the uterus. In about twenty-four hours the irritation thereby induced serves to loosen the retained mass and cause contraction of the uterus, and the procedure may be completed. The after-treatment consists of rest in bed and occasional douches.

Concerning the ætiology it may be said that Olshausen estimates that 80 per cent. of cases in Berlin are criminally induced, and the same figures probably hold good for other large cities. Syphilis frequently interferes with pregnancy, but induces premature delivery rather than miscarriage. The effect of trauma has been greatly overestimated.—*Beitrag z. Geb. u. Gyn.*, Bd. 8, 140.

Theodore J. Gramm, M.D.

CYSTITIS AFTER GYNÆCOLOGICAL OPERATIONS.—Baisch finds this to occur almost exclusively when the catheter is demanded for ischuria, particularly after the radical operation for uterine carcinoma. It usually begins from the third to the eighth day after operation, and the later its advent the milder is the inflammation. The urine usually has an acid reaction, and is only alkaline or neutral when pus is abundant.

It is an interesting historical fact that Pasteur was the first to show, in 1859, the relationship of micro-organisms to ammoniacal decomposition of urine. Since then many experiments have been conducted to identify the germs inducing cystitis. According to a number of experiments the bacterium *coli commune* is the one most frequently concerned, and many authors ascribe to this micro-organism the chief rôle in causing cystitis. Still the results of experiments to determine this question have not always been confirmatory. Baisch has re-examined the subject, and has obtained some interesting results. He examined forty cases on the first days of the cystitis, and found that while the urine contained numerous germs, that there were but few varieties present. He found streptococci six times, staphylococci thirty-four times, and the bacterium *coli* ten times in association with the former. He never found the colon bacillus alone present, when there had been no cystitis present before the operation. Whereas, if before the operation the urine was cloudy and contained the bacterium, there was always present after the operation a material increase of the opacity, and the colon bacilli existed in almost pure culture.

The conditions, however, were found to vary when the urine was thereafter examined daily, and especially when irrigation and the catheter were used. After about two weeks, in addition to the streptococcus and staphylococcus, the bacterium *coli* appeared, so that after about the third or fourth

week the cocci diminished and the colon bacilli were almost alone present. Examination of late cases will therefore show the colon bacillus to predominate, and this finding led to the error of ascribing to them the major rôle in the ætiology, whereas the streptococci and staphylococci were the real cause. The colon bacilli are present from a secondary invasion.

Respecting the source of the bacilli, the investigations showed that the clear urine of a woman contains no germs; hence they must be derived either from the urethra, and reach the bladder by means of the catheter or spontaneously, or they must be derived from the bowel and enter the bladder through the kidney after being taken up by the blood, or they immigrate through the bowel and bladder-walls. These several possibilities have been experimentally examined, and the latter of them found to be untenable. It has furthermore been shown that pathogenic germs do not normally inhabit the urethra. The bacterial flora of the urethra is dependent upon the character of those present upon the vulva, the vestibule and vagina. They vary in the puerperium, during pregnancy, in healthy women, in those confined to bed, and after operation. In a number of clinical cases examined, the yellow staphylococcus predominated, while the colon bacillus was present in only two-thirds of the cases. The examination of a large number of operated cases confined to bed revealed the fact that after two days' confinement in bed, staphylococci and colon bacilli are present about the meatus. The presence of staphylococci is explained by their universal existence as germs of the skin, and the presence of the bacterium coli by the proximity of the anus. So that it is the confinement to bed which explains the presence of micro-organisms about the meatus and in the urethra. Experiments have also shown that the diminished frequency of micturition during confinement in bed favors their presence. This entire examination has shown that post-operative cystitis is due to catheterization, and explains some of the contradictory results of former observations. —*Beitrag z. Geb. u. Gyn.*, Bd. 8, 297.

Theodore J. Gramm, M.D.

EXPERIMENTAL PRODUCTION OF HYDRAMNION.—Wolff, in some experiments on rabbits, first determined the amount of liquor amnii in several stages of pregnancy and estimated the average amount. This he compared with the amount of liquor amnii obtained from rabbits from whom two days before he had removed the kidneys. His observations showed that onward from the middle of gestation the quantity of the amniotic fluid normally diminishes. This normal diminution, however, did not occur in the cases with extirpated kidneys, but the quantity rapidly increased, so that at the end of gestation it equaled twenty times the normal amount. The author believes that the hydramnion was not due to a transudation from the maternal vessels, but represented the renal excretion of the fœtus. Probably some cases of hydramnion in women may be due to circulatory disturbances in the maternal organism causing urinary substances to accumulate in the blood of the fœtus which induce an increased secretion from its kidneys.—*Arch. f. Gyn.*, Bd. 71, 224.

Theodore J. Gramm, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

THUYA OIL IN CORNEAL OPACITIES.—There is no condition of the eye in children that appeals so strongly to the sympathies of the oculist as the presence of a dense opacity of the cornea, preventing all use of the eyes for close work, and therefore interfering with the mental development of the child and impairing its future usefulness as a member of society. Thuya oil, one drop on the affected eye, which is then massaged through the closed lids, followed by a hot wet compress for five minutes. The author has found this method very effective in diffused nebulae and in the more dense form of opacity known as a macula. [(W. C. Converse, M.D., in *Homœopathic Recorder*.)]

"RUN DOWN."—Dr. W. B. Hinsdale, in *The University Homœopathic Observer*, admits that while this expression very often seems to be applicable to a large number of both hospital and private patients, it is rather indefinite and may even prove to be a convenient phrase in which to cloak the beginnings of many real disorders. There has been discovered, thus far, no microbic cause for the run down state. Monotony and high-tension routine weary the mind, and internal and external intoxicants, developed in close confinement, poison the tissues and they relax. Once unduly relaxed, the individual is ready to be engrafted with tuberculosis or fevers. His blood becomes impoverished. If a girl, chlorosis may follow. If of a high-strung nervous temperament, the patient develops insomnia or becomes neurasthenic. If of the muscular or deliberate type, he becomes irritable, listless and complains of being so tired that he cannot get rested. The sort of exhaustion of which we are now speaking is not always primary. Sometimes an acute illness leaves a person in quite a similar condition. He has reacted from the fever and toxins of his disease, but does not regain his former strength. This is notably so after influenza and after typhoid fever. The author does not believe in the so-called tonics. He believes in the true tonics—pure air and pure food. Among the medicines which he has found helpful we note the following: Phosphoric acid, picric acid, nux vomica, zincum, picrate and phosphite of zinc and gelsemium. Zincum is indicated many times for the slow and imperfect reactive power. The nervous weakness shows itself by twitching and jerking of the muscles; even in sleep. When spinal irritation accompanies exhaustion, the picrate of zinc is better; while, for the lag and insomnia of business men suffering from mental depression and busi-

ness worry, the phosphite of zinc should be preferred. Gelsemium suits the patient with the low, irresponsible nervous condition, who suffers from languor and from muscular relaxation. The author insists upon the prescription for such patients, including also sensible advice in regard to those important adjuvants—rest, recreation, deep breathing, eating and freedom from worry.

IRREGULAR DISCHARGES OF BLOOD FROM THE VAGINA.—What a blessing to humanity it would be if the whole medical profession would, once for all, recognize the full meaning of Dr. Homer I. Ostrom's article upon the above topic (*Homœopathic Recorder* for May). Our increasing knowledge of malignant pathology strengthens the belief that the initial process is a local one, and throws across the dark clinical picture with which we are becoming more and more familiar one ray of light that, in the early stage before dissemination takes place, it is possible to cure by the complete removal of the diseased uterus. Such an early stage is very apt to be marked by irregular discharges of blood from the vagina and is, therefore, the period of election for radical surgery. Can anyone read this without recognizing the obligation that rests upon every physician and surgeon? The answer is that not only some of us have, but will continue to hold, false notions upon this important subject. Certain periods of life will add significance to this irregular bleeding. Occurring before puberty, it is almost pathognomonic of sarcoma of the uterus. Occurring at or near the climacteric, such irregular discharges are caused by some neoplasm situated in the uterus. These are broad statements, but their general acceptance would do much towards the prevention of so many "incurable" uterine cases. We commend this article as worthy of a general reading by the medical profession. It is short, but it does not take long to tell the truth.

TO COUNTERACT THE FORMATION OF CATARACT.—According to Dr. Goulton, cataract is a consequence of gout or rheumatism. The turbid lens represents, as it were, a deposit of gouty substances. He therefore prescribes for its removal, or at least for its retardation, those remedies which he has found most suitable for chronic gout. He gives weekly doses, in succession, of the following remedies: 1. Sulphur 12x, silica 12x, calcarea 12x, lycopodium 12x. He rarely finds it necessary to repeat this procedure. He has a large proportion of successes; that is, the lens does not become any more opaque. He challenges others to repeat his experiments, but asks them "to imitate with exactness."—*Homœopathic Recorder*.

ARTEMESIA ABROTANUM: VERTIGO WITH FALLING FORWARD.—Dr. M. Le H. Cooper, in *Hom. World*, gives us an interesting experience in which the arborvital tincture of artemesia abrotanum cured a vertigo which caused the patient to *fall forward*. The artemesia absinthium causes a vertigo with tendency to fall *backward*. Seven years previously the patient had suffered from congestion of the brain during an influenza, and had been unconscious for thirty-six hours. Following this attack, headaches, pains in the right side of the head and numbness of the left side of the body had been complained of. Her sight was affected, as if a sudden darkness came over her eyes. Some months later there appeared over the extensor surfaces of each arm an eruption of dull, reddish patches, varying in size from a shilling to that of a half-crown piece. Patches also appeared about the right hip and

upon the back. This eruption was always worse at the seashore and in cold weather, and itched excessively at night. It seems that several remedies were tried without success, until the author concluded that a previous vaccination had something to do with her condition, and prescribed thuya tincture. She recovered her health. Single doses of the remedies were used.

WHAT IS DISEASE?—Dr. Lewis P. Crutcher concluded his paper upon this topic, before the Kansas State Homœopathic Society, in the following logical manner. “Homœopathy offers the only conservative, satisfying answer, and it is because she always begins her deductions with the normal.” “She approaches the shrine of therapeutics with a normal man and hence finds out exactly what drugs will do.” “She likewise approaches this great question, What is Disease? with a normal man, and having determined that the normal man is but a perfect expression of the physiologic function, with the inherent power to retain this perfect expression, she concludes that *disease* is not only this function (Life Force) distuned, but that there is also inability to regain the normal.” “Therefore disease is that condition of the Life Force which prevents it from returning to the normal, after the exciting cause of symptoms has been removed.” “Disease then is functional, not physical.” “It is dynamic, not cellular.” “It is of the man, not of the anatomy.” “It is of the life function, not of the organic function.” “And it expresses itself by symptoms.”—*The American Physician*.

BETTER NOT LAUGH TOO SOON.—The history of all the great reforms, of all the startling innovations, of all the great discoveries, would seem to show that the wiser men laugh late, while the foolish indulge in that pastime prematurely. As “*Que Dites Vous*” remarked, in *Medical Century*, when Peruvian bark was first introduced into medicine, it was thought to be very sinful to use it; now, of course, the contrary opinion holds good. Harvey was considered quite mad when he announced the circulation of the blood. When the stethoscope first came into vogue, some wise men suggested that its use might be likened to listening to the grass, to hear it growing, or tapping a bottle for the purpose of ascertaining the quality of its contents. Now many auscultators can hear “the grass growing,” and even more wonderful than that. The first steamboat, the first locomotive, the first vaccination even, were all things to laugh about. To-day, vaccination is no laughing matter, as we all know. Daguerre was dubbed a lunatic because he ventured to suggest photography. The first potato, upon its introduction into Scotland, was looked upon as unholy. Hahnemann was laughed at when he ventured to show to the medical profession that they did not hold the sum total of all therapeutic wisdom within their craniums, individual or collective. And so we might go on, but it would all show that often ridicule or laughter is but the premature expression of a shallow wit. What shall we say of those who *still* ridicule homœopathy, after a century of confirmations? The editor would not print it.

THERAPEUTIC SKEPTICISM.—Dr. W. N. Mundy, an eclectic physician, read an address upon this subject before the Northwestern Ohio Association recently. There has been a considerable amount of discussion upon this topic during the past few years; but there has not been too much said, nor is the matter closed. It is a question that the medical profession will have to take

up, even more seriously, before long. At least we think so. Dr. Mundy finds that as he grows older and more experienced in the practice of the therapeutic art, he inclines towards therapeutic nihilism. It is interesting to note that this skepticism has been very largely due, in his case, to the discussions which he has heard at medical meetings, to the expressions and opinions of the representative men whom he has met in consultation, and to too much journal reading. Here is food for thought. Take, for example, the medical meeting: one speaker or essayist lauds a certain remedy to the skies as a veritable panacea for all the ills of the race. Another man finds the remedy, under discussion, worthless. Another writer reports a case of *tabes dorsalis* cured with minute doses of some tissue salt. Another one finds that the use of a certain proprietary article, containing several drugs, is followed by an invariable success; and promptly ascribes its efficacy to *one* of its component parts. At the end of the meeting the poor doctors wander home, asking themselves "where they are at" and feeling hopeless and discouraged, instead of strengthened and benefited, by what they have heard. Well, we guess that is so. In the medical meetings of our own school, there has even been observed some things, in the discussions, that have been open to criticism. We asked one of our dispensary patients recently what his occupation might be. He laughingly replied that he was "a wind-jammer," in a brass band. When asked what he played upon, he answered, truthfully, that he could not play, but simply walked with the band, and went through the motions without producing any musical results. Well!—

Some of these days the Presidents of our Medical Societies will decide that we members who participate in the discussions will have to say something pertinent to the topic under discussion, or else remain quiet. Going through the motions, without producing any results, will be voted a crime. The presiding officer who inaugurates this will likely get a monument, or at least a vote of thanks. Then, again, Dr. Mundy regrets that the medical profession is composed of two parties: The tradesmen and the doctors. He does not like the prevailing method in which the tradesman calls upon the doctor, telling him what is good for sick people; whereupon the doctor, thankfully and apologetically, promises to be good; and to use large quantities of the tradesman's products in the future. He thinks the tradesman often evolves a panacea, upon very scanty clinical data, and looks to the doctor to furnish the rest, at the expense of suffering humanity. After all, time will correct such things. Dr. Mundy thinks we should be more careful in our diagnoses, and less extravagant in our therapeutic claims; a sentiment with which we heartily coincide. Dr. Mundy's address can be found in *Eclectic Medical Journal* for July.

EXPECTORATION—SALTISH IN TASTE AND GREENISH IN COLOR—suggests *natrum carbonicum*.—Dr. Becker mentions a case of long-standing goitre, which was greatly diminished in size by this remedy, the symptoms upon which the prescription was made being this character of expectoration and a dry cough, which was aggravated upon entering a warm room.—*Medical Advance*.

THE MENTAL STATE OF THE AURUM PATIENT.—Dr. H. R. Arndt states that the aurum patient, even in his gloomiest and most suicidal moods, is characterized by a deep sense of humility and self-depreciation which is mark-

edly different from the reckless, heartless selfishness which sometimes goes with the suicidal tendency.—*Advance*.

FRAGMENTARY PROVING OF VARIOLINUM.—Dr. Paul B. Wallace, who has been using variolinum, in high potency, instead of vaccination, claims to have produced, with this remedy, pimples upon the forehead. These begin as red spots, having a shotty feel. Some of these dry up, while others show a little pus about the third or fifth day after their appearance. Symptoms seem to appear from the tenth to the fifteenth day after the medicine is administered. There was also produced a feeling of utter collapse about eleven o'clock in the morning. Empty sensations appeared in the hands and fingers, as though the blood had been drawn off. Weakness throughout the abdomen and back. Dull headache, worse on top and in the frontal regions.—*Medical Advance*.

NOTES CONCERNING THE THROAT AND NOSE.—Those general practitioners, who feel that the articles published by our specialists are sometimes almost too technical to be of general interest, will be delighted with Dr. Thomas L. Shearer's talk to the family physician upon the examination of nose and throat cases and their successful treatment. This paper was the leader in *Eye, Ear and Throat Journal* for June, and contains some very useful information in the elementary technique of the specialist. Several of his therapeutic suggestions attracted our attention. He says that when, in a purulent catarrh of the nostrils, we have chilliness and headache and feverishness, as well as general malaise, and these symptoms seem to return periodically at the same hour daily or every other day, cedron 3x., five-drop doses three times a day, or chininum arsenicosum 2x., one tablet every three hours, will relieve very promptly. For a profuse, yellow, purulent discharge, with headache, general malaise, and especially with mental depression, he would select apocypanum cannabinum 3x., five drops night and morning, which is almost a "specific." This is a strange prescription, at first glance, but a little reading of the pathogenesis of apocypanum will reveal that it is simply another one of those numerous instances in which we have not known the whole story of the drug and its effects. The student of materia medica will meet with many such instances, for we have not yet begun to understand the remedies that have already been proven. In reference to that common complaint, inflammation of the frontal or maxillary sinuses, with great congestion and much pain, the author lays stress upon the necessity for establishing free drainage into the nostril. He recommends the use of glycerin upon the cotton applicator, as close to the openings of the sinus as possible. Particularly efficacious is a mixture of equal parts of fluid extract of eucalyptus and glycerin, applied as just mentioned. Especially good are the remarks relative to the recurrence of adenoids after operation. Dr. Shearer thinks that the diet and digestion of the child should be carefully looked after; because, if careless in diet and not attentive to the digestive difficulties of those subjects of adenoids, we shall surely reap as our reward congestion of the naso-pharynx, with recurrence of the growths. We feel like adding the fact that when a child shows a constant tendency to colds and sore throats upon every slight exposure, when it cannot do what other children are doing with impunity, when it is called a delicate child because it shows such a marked catarrhal tendency, the family doctor should suspect adenoids or enlarged tonsils, or both, and

send the case to the specialist for operation. After operation we have seen many such delicate youngsters blossom out into really robust youths.

MISTLETOE.—The *Southern California Practitioner*, for April, contains a very interesting article upon the habits and habitat of the mistletoe. The article is beautifully illustrated. One of the illustrations portrays a young couple who have just discovered that they are standing beneath a growth of the mistletoe. They need a chaperon. The mistletoe is an incorrigible "sponge" in nature. This luxuriant and beautiful member of the family *Loranthaceae* is a parasite pure and simple. It has no roots, but anchors itself to the trunks and branches of trees, by a sucker-like process. Its perpetuation is, apparently, made possible by the birds. These little songsters are very fond of the mistletoe berries, but in eating of them the glutinous seeds often adhere to the feet of the bird and thence are carried to the branches and trunks of trees, where they stick and germinate. This may be news to some. It takes months for the seed to germinate after having stuck to the bark. During the germination process, the plant develops a regular attachment disc from the centre of which a sinker penetrates the bark of the tree to the wood. This parasite not only absorbs the sap, but it also appropriates much of the carbon dioxide in the air. The plant flowers in January or February, and the fruit attains perfection about ten months later. The result of a large growth of this parasitic plant is, of course, death of the tree. Our well-known remedy, *viscum album*, is prepared from one variety of the mistletoe.

CAN CATARRH BE CURED BY INTERNAL REMEDIES ALONE?—Dr. Douglas answers this question after twenty-five years' experience. He does not ridicule or criticise those who prefer to treat catarrhal affections by purely local measures. He even admits that he, sometimes, employs local measures in conjunction with his internal remedies; but he insists that if the physician prescribes carefully and accurately, the internal remedy will yield perfectly satisfactory results and will do away with the necessity for frequent or prolonged local applications. One fact stands out with distinctness in his experience: Routine or careless prescribing in catarrh will never give good results. Dr. Douglas gives in detail the indications upon which he has successfully selected his remedies. For the most part they are the symptoms that have been produced upon mucous surfaces in the provings, and may be found in the pathogenesis of the various remedies under proper headings. But the author does not think the prescriptions should be based upon these alone, but also upon the constitutional peculiarities of the patient. In short, if you would win success in the treatment of catarrh, prescribe according to the teachings of Hahnemann, and you will not need to medicate locally to such an extent. Some rather unusual remedies are included, as, for example, *oleum jecovis* (*jecoris*?) *aselli*, which he thinks is indicated after you have failed with *hepar*, *hydrastis*, *copaiba*, and other remedies, and the patient cannot seem to get entirely well, because he catches fresh cold upon every slight exposure. The oil restores the tone of the patient and removes that peculiar susceptibility which keeps up the catarrhal condition. We feel like recommending the study of *spigelia*, *elaps* and *theridion* to those who have trouble in relieving their chronic cases of catarrh. Dr. Douglas's articles may be found in full in the *American Physician* for May.

LUPULIN IN SEXUAL DEBILITY.—Translated in *Hom. Recorder*, from *Allg. Hom. Zeit.*, is an interesting example of the common form of prolonged sexual irritability resulting in frequent nocturnal pollutions. Dr. Mossa, who reports the case, attributed the trouble to masturbation, which had been practiced up to the eighteenth year and then abandoned. Although married and the father of two healthy children, this patient still suffered from very frequent nocturnal losses, which had resulted in poor health. He was despondent, weary of life, suffered from headache in occiput and below the eyes, backaches, dark rings beneath the eyes, pressure on chest as from large stone, formation of gases in stomach with eructations, easy development of colds from slight exposure. It seems that the ejaculation of semen was very rapid, and that the patient also had an irritability of the bladder, as shown by frequent desire to urinate. It is needless to state that the man had received much treatment at the hands of physicians. Allopathy, homœopathy and the water-cure did nothing for his emissions. Electricity could not help him. This case illustrates a very common type of sexual atony with which every physician has had ample experience. It is interesting to note that Dr. Mossa practically cured the man by the use of lupulin 1x trituration. He administered as much of the remedy as would lie upon the point of a knife blade every morning and every evening. The remedy did not remove the symptoms of gastric fermentation, but caused the emissions to occur at very infrequent intervals, and improved the man's physical and mental state very much.

THE SUCCESSFUL TREATMENT OF TETANUS.—Tetanus is becoming such a frequent source of anxiety and perplexity to the profession that the report of Dr. J. B. Dunham, made before the Illinois Homœopathic Association, and republished in *The Clinique*, becomes of unusual interest at this time. Dr. Dunham has had success, in three cases, with a combination treatment, consisting of a dose of strychnia, $\frac{1}{60}$ grain, at 7 and 11 A.M., and a similar dose at 7 and 11 P.M. Gelsemium tincture, given until the eyelids begin to droop, then the dose lessened, but steadily continued. Chloral hydrate, 10-grain doses, given often enough to secure its physiological effects. The author gives these remedies together as stated, and his results, thus far, have encouraged him to relate his experience for the benefit of future victims. While this method may be open to some theoretical criticisms, no one who has ever been through the suspense and anxiety of a case of well-marked lockjaw will feel inclined to look lightly upon a method that has carried to a successful termination even three cases. The author emphasizes the importance of special nursing in this malady and we give below an outline of his recommendations.

NURSING A TETANUS CASE.—A strong, intelligent nurse must be at the bedside day and night. Not for one moment must this vigilance be relaxed. The room must be so situated that perfect quiet can be obtained. He must be fed with the greatest care. Small amounts of liquid food may be carefully administered through a straw. It may be necessary to extract a tooth, if the jaws are fixed all the time. Reading quietly to some patients has seemed to lessen the spasms. Allow no other noises of any kind. Be careful in speaking to the patient that he be not startled. Keep all medicines and liquids out of sight. The physician must not enter the room suddenly, but may re

main in an adjoining room, for a moment, until his presence becomes known to the patient. The patient's back may be slowly bathed or rubbed with hot water, if he be quietly informed that such is to be done. Suddenly touching the patient's body brings on a spasm. The attendant should be instructed in the methods for the relief of sudden strangulation or spasms of deglutition, should these come on while swallowing liquids; as they sometimes will occur at such times, even when the patient is apparently convalescent.—From *The Clinique*.

NYCTANTHES ARBOR TRISTIS.—Dr. Ghose has proven this remedy. It belongs to the natural order—jasminaceæ. The parts used are the fresh leaves. *Nyctanthes* means "night-flowering." *Arbor-tristis* means "the sad tree." The latter probably having reference to the habit of the tree, which flowers at night, losing much of its brightness and freshness during the day. It seems likely to prove a very useful remedy in bilious and remittent fevers.

The symptoms produced suggest this use for it. The patient was anxious and restless, had a dull headache, tongue coated thickly with whitish or yellowish fur, there was tenderness over the liver, the hepatic region was sensitive to touch. The urine was high colored, and bilious vomiting came on when he drank. Great burning was experienced in the stomach, relieved by cold applications. The author has tried the remedy in both remittent and in intermittent malarial fevers, with excellent results. In intermittent fever it was curative when, with above symptoms, there were quotidian or even double-quotidian types of chills. Chill, preceded by yawning and thirst, accompanied by thirst and pains in stomach; heat-stage marked by vomiting of bile; thirst and fever-blisters about lips. Sweating stage absent; apyrexia not clear, there being some emaciation and debility. It seems probable that the therapeutic effects may be obtained from the mother-tincture or from the first decimal dilution. As Dr. Ghose's experience covers some one hundred and twenty cases, and as the remedy acted well in all of them, we are inclined to believe that *nyctanthes* will prove a valuable addition to our *materia medica*.—*Hom. Rec.*

CONIUM IN TUMORS OF THE BREAST.—It is always pleasant to have our observations confirmed, so we take this opportunity of assuring Dr. Dewey that, in one instance at least, we have been able to substantiate all that he has said regarding the virtues of conium in breast tumors. The 30th was prescribed. The lump was as large as a walnut, situated in the upper portion of the left mamma. The patient was 26 years of age and unmarried. The lump was not freely movable, owing perhaps to a skin attachment. No glandular infiltration could be detected in the axilla. An occasional fine, stinging pain was experienced radiating from the lump. The nipples were quite normal. Duration of lump some twelve months or longer. We are not inclined to treat mammary indurations medicinally, believing that it is best to be sure of their exact nature, which cannot be accomplished while the lump is within the breast. This lump disappeared within a few months while the patient was under the influence of conium 30th, prescribed according to Dr. Dewey's suggestions. Thanks, Dr. Dewey.

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THE RELATION OF HOMŒOPATHY TO BACTERIAL DISEASES.

BY J. HERBERT MOORE, M.D., BROOKLINE, MASS.

(Read before the Minnesota State Homœopathic Institute, May, 1904.)

Mr. Chairman and Members of the Minnesota State Homœopathic Institute :

The indisputable bacterial origin of the great majority of diseases which especially affect the early period of life comprising infancy and childhood, and the equally indisputable clinical evidence of the curative effects of remedies prescribed against these diseases in accordance with the homœopathic principle of therapeutics, would seem to render the subject of "The Relation of Homœopathy to Bacterial Diseases" not out of place in the Bureau of your Institute devoted to Diseases of Children.

The bacteriological laboratory stands second to none as a source of demonstration from which our knowledge of the ætiology of disease, as well as of its essence and action, has been derived; and too much satisfaction cannot be expressed concerning the value of these demonstrations, especially during the past two decades, as bearing upon preventive medicine and aseptic surgery; nor can too much credit be given the old school of medicine for the prominent part it has played in bringing about these results.

On the other hand, it is a very different page of medical history which reveals the futile efforts of the old school of medi-

cine in attempting to utilize the findings of these laboratory investigations as a basis for the treatment of disease with drugs; and nothing but disappointment has followed their attempts to apply these laboratory results to the curing of disease, already set up in the organism by the bacteria or their toxins, by antiseptic or any other drug-treatment.

This is evidenced by the statement of the ex-president of the American Medical Association, who stated in his annual address at New Orleans, on May 5, 1903, “. . . . In the vast majority of infectious diseases we are helpless to apply a scientific cure. Drugs, with the exception of quinine in malaria, and mercury in syphilis, are valueless as cures.”

In striking contrast to this therapeutic nihilism is our own belief in curative remedies; and how well do we know that, instead of drugs being valueless as cures in infectious diseases, they are of great value. It is a matter of every day clinical experience with homœopathic physicians that remedies, homœopathically prescribed, act as effectively in diseases of bacterial, as in those of non-bacterial origin, as evidenced by the marked results obtained by the various remedies homœopathically indicated in the respiratory, gastro-enteric and contagious diseases so often affecting the little patients with whom this bureau deals.

These opposing experiences resulting from the practice of the therapeutic system of the two schools well illustrate the advantage of the homœopathic system of therapeutics; founded as it is upon a principle of drug-action as unchanging and effective in these days of a better understanding of the essence and ætiology of disease, as in the old days when pathology was ever distrusted and bacteriology unknown.

The homœopathic principle of drug-action has not only stood the test of time relating to our more perfect knowledge of disease, but becomes more firmly entrenched in the domain of natural science the more the latter unfolds to us her mysteries in other directions, and especially along the allied path of biology.

Nor is it the scientific study of bacteria relating to their life history and agency in disease, making up the bacteriological department of biology, which is alone engrossing the attention of medical men; but that which is still more interesting is the

question of bacterial immunity, treating of the *modus operandi* by means of which the tissue cells are enabled to resist the invasion of the bacteria and to overcome the effects of their toxins.

Equally interesting to every homœopathic physician should be the question of the method of action by which the specific curative remedy of homœopathy proves such a valuable ally in assisting nature along this line of overcoming these bacterial effects. Furthermore, we should consider this question as important as it is interesting, for the reason that we, as scientific homœopathists, should ever be on the alert to see to it that investigations concerning the philosophy of homœopathy should keep pace with the investigation of disease, especially on its biological side; with the end in view of ultimately being able to place our homœopathic principle of therapeutics upon an as irrefutable basis, so far as a demonstration of its mode of action is concerned, as it has been placed during the past century by demonstrable and irrefutable clinical results.

Though we may not as yet be able to deal with this question from the point of actual demonstration we can, with profit, deal with it suggestively; and research along these two lines of the action of bacterial disease and of the action of the homœopathic remedy should, in common, appeal to the homœopathic physician, because the results obtained by investigations of the action of the tissue cells in bacterial immunity and in nature's method of resisting their toxins will afford us valuable suggestions in our investigations of the method of action of our law of cure.

Now comes the question of how does the action of the homœopathic remedy cure the disease already caused by the toxins resulting from the invading bacteria. The one *fact* we are dealing with is that the homœopathic remedy does so act. On the other hand, when we consider the question of *how* it acts we are dealing with theory for two reasons: first, that it has never been positively settled as to how the homœopathic remedy acts in any case, bacterial or non-bacterial; and second, the bacteriologists themselves have not as yet settled upon any one theory of bacterial immunity, or of nature's method of repelling the bacteria or their toxins when she is unaided by any therapeutic measure.

The first step of the cure is evident, for the close similarity of the symptoms of the drug to those of the disease certainly indicates that the selective affinity of both the homœopathically indicated remedy and the bacteria or their toxins is for the same part or organ of the system and, for this reason, demonstrates that the drug, when prescribed, will act on the same part as does the disease. This granted, let us review Hahnemann's own theory as to the *modus operandi* of the homœopathic remedy which is essentially as follows: The similar drug-impressions eradicate the disease on account of the impossibility of the coexistence of the two similar disease and drug-impressions upon the same part; and it is the drug which displaces the disease, rather than *vice versâ*, because of the stronger affinity of the drug for the part, inasmuch as drug-affinity for a part is always stronger, though the drug-impressions are more transient and more easily eliminated than in the case of disease; the natural disease is thus eliminated, subsiding, as it were, for want of territory to act upon, because this territory which it originally affected in response to its own selective affinity is now occupied by the similar drug-impression; the vital action of the part, having been embarrassed by the presence of the natural disease, is now liberated as the disease is being displaced by the drug-impressions, and consequently its reaction is established, the remaining drug-impressions are eliminated, and the normal condition of the parts is restored.

If this theory were tenable as regards homœopathic drug-action against disease of non-bacterial origin, it would be equally tenable regarding homœopathic drug-action against disease produced by the toxins of bacteria. If a similar drug-action could substitute itself upon a part in the place of a non-bacterial disease, it certainly could substitute itself in the place of a disease which is the result of toxins; for it can dispute with these toxins their action upon a part, as well as it can dispute the action of any other *materies morbi*. In the presence of this similar substitutive drug disease occupying in a protective way the very tissue or tissues which the bacteria and their toxins are endeavoring to attack, or having attacked are endeavoring to hold, these bacteria and their toxins would become inoperative and their diseased effects subside, for the same want of proper territory to feed upon as in the case of any non-bacterial disease.

A demonstration of this is found in the fact that bacteria will not act upon tissues unless the tissues offer them a favorable breeding-ground for growth and development. This is seen in the fact that bacteria normally inhabiting the body, as does the colon bacillus the intestines, will certainly not invade the tissues and set up their disease producing action unless the integrity of these tissues is impaired, either in function or lesion, so as to furnish a favorable nidus for the action of the germs; this is nearly equally true of bacteria introduced from without the body. An equally unfavorable breeding-ground for a continuance of their growth and development would be offered the bacteria, by a diseased tissue whose territory had become occupied by the more affinitive drug-effects whose similar action precludes the coexistence of both drug and bacteria effects.

Further bacteriological developments will certainly definitely settle the question of bacterial immunity, and the process nature makes use of in her attempt to repel, in disease, both the bacteria and their toxins when she is unaided by any therapeutic measure.

Whether this process shall be decided more along the lines of Metchnikoff's phagocytosis theory of immunity in accordance with which the ameboid cells from the mesoderm are supposed to have the power of seizing upon and destroying the bacterial cells, or along the lines of Ehrlich's chemical side-chain theory, which is based upon the idea that chemical reactions are necessary to the destruction of the bacterial cells, this thing is certain: that *tissue cell activity* is the motor underlying the process of bacterial immunity, and underlying the process which nature makes use of in resisting the bacterial toxins, whether we accept either of these two chief theories of the phenomena through which this cell activity accomplishes its ends. It is also certain that tissue cell activity is the agency through which the similar drug of homœopathy acts, whether we accept Hahnemann's theory of substitution or any other theory which has as yet been advanced.

When bacteriology shall have definitely settled the phenomena by which this cell activity accomplishes its ends, more light will be shed upon the phenomena by which this similar drug-impression curatively assists these cells in throwing off their diseased yoke; and we shall probably find that in addition to the

defensive and *substitutive* action of the drug-effects operating directly upon the diseased tissue by implanting thereon its drug-impressions which, because of their similarity to the impressions of the bacterial action, become incompatible with these bacterial impressions (the theory of the homœopathic curative action of a drug which we have described at length above), we shall find that these similar drug-effects act *offensively* and *aggressively* against bacteria and their toxins by so affecting the tissue cells as to stimulate them to a reaction of their vital action, enabling them in this way to generate either a greater production or greater activity of the phagocytes, the anti-bodies, or the anti-toxin, in accordance with whatever phenomenon is the process by which this potent motor cell activity works.

I have thus hastily and in this imperfect way run over the relation of homœopathy to the results of bacterial action in disease, to emphasize the fact of the curative action of our remedies in these diseases, as well as to signify the importance of our interesting ourselves in this phase of homœopathic drug-action, for the reason that in the near future the relation of homœopathy to the important question of immunity, of the action of toxins, and of the antagonizing of such action by both homœopathic drug-remedies and antitoxin agents, will demand the attention of the best minds in our school, and I personally believe to the great advantage of homœopathy.

Having thus considered the action of our homœopathic drug-remedies in bacterial diseases, let us now give our attention to a consideration of the antitoxin agents themselves. This brings us to two questions, both of which are of vital interest to homœopathy as well as to general medicine: first, as to whether there is any other specific therapeutic agent which acts curatively in bacterial diseases besides the homœopathic drug-remedy, which question may be unequivocally answered yes, the biological agent of antitoxin. The second question is as to whether the action of this antitoxin agent is in any way allied to the homœopathic law of cure, to which my own answer is, that it is so allied.

The only diseases in which antitoxin has been successfully applied are those of diphtheria and tetanus; for the reason that it is only the bacteria of these two diseases that, upon culture, have as yet been made to yield soluble toxins. In tetanus

the *principle* of antitoxin action has been found as satisfactory as in diphtheria, but the *results* have not been nearly as satisfactory for this reason: tetanus is such a rapidly acting disease that the diagnosis usually cannot be made until it is too late for antitoxin to act. Tetanus has no early indicative symptoms until fixation of the muscles has begun to occur; and by this time central tissue change usually has already gone on so far, even to the point of destruction, that it cannot be changed over by any means. If antitoxin would be resorted to sufficiently early to anticipate the symptoms of tetanus, it probably would be as effective as in diphtheria. In fact, it already has been successfully used when it has been administered thus early in injuries promising this dire disease.

And now what is the *modus operandi* of this principle of the action of antitoxin treatment?

As I have said, I believe it to be essentially homœopathic, and by essentially I mean that like the homœopathic drug-remedy the antitoxin acts directly upon the tissue cells; first, stimulating their vital energy and enabling them in this way to generate either a greater production or greater activity of those natural antitoxins or anti-bodies which nature always produces to some degree even when unaided by any therapeutic measure, thus constituting an offensive and aggressive action against the toxins themselves, on the part of the antitoxin acting through the tissue cells, just as the homœopathic drug-remedy probably acts in any case of bacterial disease when the toxins themselves must be overpowered; and second, by acting, also by means of the tissue cells, directly upon the tissues, which have been damaged by the toxins, and removing from the tissues the diseased effects already set up by the toxins in the same manner common to any drug-remedy in a homœopathic cure.

A demonstration of this second action, through the tissue cells, of curatively removing from the tissues the damage already done by the toxins is in the fact that antitoxin not only very speedily causes the toxins to become inoperative, thus preventing further mischief on their part, but it so rapidly cures the lesions and abnormal functions, already set up by the toxins, as to more than suggest that the antitoxin has a specific curative action upon the tissues themselves, and, too, upon the same tissues as are invaded by the toxins.

Otherwise, if the antitoxin action is only an antidote to the toxins like any chemical antidote, and that, too, by only antagonizing the toxins in the blood as some would have us believe, why should it not take more time for the tissue disturbance, already set up by the toxins, to recover?

Antitoxin thus acting upon the same tissues as the toxins, and not only causing the toxins to become inoperative, but speedily removing the tissue disturbances themselves which have already been produced by the toxins, so closely follows the action of the homœopathic drug-remedy in the drug-cure of bacterial disease that it apparently demonstrates, at least from the clinical standpoint, that its curative action upon the tissues and against the toxins is in accordance with those phenomena taking place when a diseased organism is being restored to health through the agency of the homœopathic law of cure.

Verily, it seems as if the antitoxin curative action signifies not a departure from this law of cure, but rather merely a change of instruments; the biological antitoxin in place of the natural drug-essence.

However this may be as to the *modus operandi* of antitoxin, we should thoroughly appreciate not only the beneficent results obtained from the action of our homœopathic remedies in bacterial diseases, but should thoroughly appreciate our homœopathic principle of therapeutics, which makes possible these beneficent results; and we should not rest content until investigation into its *modus operandi* shall have enabled us to demonstrate just how this homœopathic principle of therapeutics operates in the system in overcoming disease of not only bacterial but non-bacterial origin and nature.

Then will "The Relation of Homœopathy to Bacterial Diseases" be demonstrated not only from the clinical standpoint as it has been heretofore, but from the scientific standpoint as well.

TREATMENT OF SCARS OF THE CORNEA BY THE USE OF SUBCONJUNCTIVAL INJECTIONS OF BENZOATE OF LITHIUM.—Oliverés employed a cubic centimeter of 1-per-cent. strength solution of lithium benzoate in the form of subconjunctival injections in the treatment of corneal scars. The method, he states, does not produce any reaction and is more efficient than the substance is when it is used in the form of collyrium. He has found that six injections usually produce a maximum effect. Dr. Oliverés.—*La Clinique Ophthal.*

SOME EXPERMENTS IN RADIOTHERAPY.

BY FRANK C. BENSON, JR., M.D., PHILADELPHIA.

(The Annual Essay read before the Wm. B. Van Lennep Clinical Society.)

THE results obtained from the use of the Roentgen ray in various forms of malignant new growths, in lesions caused by the tubercle bacillus, and in many varieties of skin disease, are now medical history; while the literature, which for several years has appeared in our medical magazines and of late has been added to our text-books on surgery and dermatology, has given us such a general knowledge of the subject that we are all more or less familiar with it; we have learned the wonderful results frequently accruing from its action, its value as a diagnostic agent, and have also learned many of its limitations and dangers. The action of the Finsen light,—the blue, violet and ultraviolet rays,—especially upon skin lesions of tubercular origin, is also a matter of record. But the reports upon the *therapeutic* action of the latest claimant for honors in the field of radiotherapy, radium, have been sufficiently infrequent, however, especially in this country, to warrant the belief that the results of any experiments in this line, however incomplete, would be of a certain amount of interest at this time. As this annual paper is intended to be based upon original research, I do not wish to enter, at any length, into a consideration of the chemical or physical properties of this remarkable substance, which has suggested new theories, upset old ones, and excited almost the entire scientific world to experiment and research; but a brief *résumé* of the subject may be in place here, and help us to farther understand its possibilities as a therapeutic agent. Radium belongs to that class of substances which are known as radioactive, that is, they possess the characteristic power of throwing off certain rays and emanations which, among other peculiar properties, penetrate substances otherwise opaque to ordinary light rays, and which are produced intrinsically without the necessity of any external stimulation. This group comprises uranium, polonium, actinium, thorium, and radium—uranium being the first sub-

stance discovered to possess these characteristic rays (the Becquerel rays), the radioactivity of the other substances is compared to it as a standard; radium possessing the highest radioactivity. Radium is isolated from the same ore which produces uranium, known as uraninite or pitchblende (sometimes from the residue of this ore after its uranium has been extracted), the most productive being found in Bohemia, but also in England, and, of late, radium-bearing ores have been found in the United States. The separation of the radium is a most tedious process of recrystallization—as much as eight tons of pitchblende having, it is said, produced less than one gramme. Pure radium is not a stable product, in that state being rapidly oxidized and destroyed by contact with the air, but, as we know it, only existing as the bromide or chloride, occurring as a white crystalline powder. Radium continually throws off heat, emanations, and its characteristic rays (one of which, at least, is similar to the X-ray), practically without diminution of its original substance, and objects brought into contact with these emanations become, to a lesser degree, radioactive and capable of producing—but only for a limited time—the phenomena already referred to. While radium produces an appreciable light under certain circumstances, the actual emanations themselves are not apparent to the eye unless brought into contact with some substance which is thereby rendered luminous, this being especially noticeable with the sulphide of zinc. The rays passing through ordinarily opaque substances affect sensitive plates which, when developed, show shadow pictures of any dense body placed between them and the point of incidence, similar to the results obtained from exposure to the X-ray, but the exposures have to be much longer (from thirty minutes to twenty-four hours, according to the opacity of the intervening body) and the resulting radiograph is more vague in outline and in every way less satisfactory; in other words, the penetrating power of the radium ray is, at least in the lower radioactivities, very much inferior to that of the Roentgen ray. During these experiments the radium used was tested upon ordinary X-ray plates, each week. Radium has shown many other characteristic phenomena, but those mentioned here are the most important, as viewed from the standpoint of a possible therapeutic and diagnostic agent. One

additional fact must be borne in mind; the radium rays, as in the case of the X-rays, are destructive to normal structures, when exposed to their action for any length of time; consequently during their use the patient and the operator must be protected, and the methods of accomplishing this will be alluded to later. Although radium has been produced in very small quantities for a considerable time (it was first isolated from uraninite in 1898), it has only been possible to procure sufficient quantities for therapeutic experiments in France and Germany during the past year or two, while in this country it has been practically impossible to procure any French radium, in sufficient quantity and radioactivity for the work, until the last six months. It has been possible to obtain radium of German manufacture prior to this time, but its radioactivity was very low. Radium has been produced in activities (as compared to uranium) of from 300 to 1,500,000, the lower grades being probably too weak for therapeutic experiment, while the highest are decidedly too strong and highly dangerous in prolonged exposures. The activities which have been most frequently used vary from 1000 to 350,000.

In presenting a report of the following cases, I would ask that it be understood that no final conclusions are aimed at, either for or against the use of radium as a therapeutic agent, the number of cases being much too small, and the period since the experiments were begun too short, to do so; but we may, I believe, be allowed to make certain deductions from the facts demonstrated. Radium bromide of French manufacture was used, the quantity being 50 mg., and the radioactivity 7000; a larger quantity—relatively speaking—of lower activity being considered safer, for experimental work, than a smaller amount of higher activity. Until recently, radium has been procurable only in hermetically sealed tubes of glass or rock crystal, which were kept covered, when not in use, by thin sheets of lead,—through which the rays penetrate very slightly, if at all,—and most of the reported experiments have been made with this form of container, but it is now possible to obtain it in a hollow lead button, the opening of which is covered with a sheet of aluminum only $\frac{1}{100}$ of an inch thick, through which the rays pass readily (indeed it has been shown that certain of the emanations will not pass through glass at all). With such

a container it is possible to project the rays upon any given point, while the surrounding area is protected, further protection to the operator being obtained by covering the button with a conical lead shield, and by attaching it to a suitable handle the rays may be brought into close contact with areas in the throat, vagina and rectum. It is advisable that, if possible, the radium be placed within at least one inch of the area to be treated. The length of the exposures must depend upon the condition under treatment, its position, and the results obtained from previous treatment in the case. It is well to begin with a short period of exposure and gradually reach the maximum—as in working with the X-ray—rather than to begin with lengthy sittings. In the cases reported here the exposures were given daily, in almost every case, beginning with a period of five minutes and gradually increasing to a maximum of twenty minutes; then, in the cases where improvement was noticed, gradually shortened. In no case should the container itself be brought into contact with the lesion under treatment, for, although the lead shields may be repeatedly sterilized by the application of antiseptic solutions or even by boiling, the container itself cannot be so treated, because the radium salt readily absorbs moisture, which reduces its radioactivity to a great extent, and the same thing occurs when it is exposed to extreme heat. When introduced into a cavity the aluminum face of the container often gathers moisture upon its surface, and this should be frequently wiped away with absorbent cotton. When not in use the container should be wrapped in thin sheet lead or placed in a lead box made for the purpose. It is also necessary to have some appliance which will hold the button in a fixed position at any angle, and the instrument here shown does this very well. I regret that no case of lupus is included in this report, as it is in just such a lesion that radium, from what I have learned of its action, would seem to be indicated as a therapeutic possibility.

CASE I.—Mr. S.; age, 36 years. Diagnosis, phagedenic chancre. After an indefinite period of incubation, developed an ulcer upon the reflected preputial layer, which was not indurated and not followed by any systemic manifestations. This patient had been circumcised. Upon applying for treatment the ulcer had been cauterized and an antiseptic dressing applied.

For a period of some two weeks following this time the condition was entirely neglected and received no treatment of any kind. At this time the ulcerated area included about one-third of the circumference of the preputial margin and was rapidly spreading. The glans penis was not involved. Radium exposures were now begun and continued daily—with the exceptions noted below. No further cauterization was employed and plain gauze dressings were used, except when the discharge was increased, then iodoform gauze was substituted. The first change noticed—and this was the case in every ulcerative area where radium was used—was an increase in the discharge; this decreased in about one week and the grayish base of the ulcer was changed to a more healthy color, a well marked line of demarcation was noticed at the juncture of the ulcer with healthy structure, the phagedenic process seemed to be checked, and cicatrization began. At this time the radium exposures were omitted for three days, with the result that the destruction of tissue recurred and the ulcer assumed nearly its original size. The changes noted followed a reapplication of the radium, and cicatrization progressed until the ulcerated area was entirely healed. Twenty exposures were made. No dermatitis was noticed. No inguinal adenopathy occurred. No internal medication was employed.

CASE II.—Mr. N.; age, 19 years. Diagnosis, phagedenic chancre. This patient had not been circumcised. Following an indefinite period of incubation, an ulcer appeared upon the superior aspect of the redundant prepuce, which was not indurated and not followed by any systemic symptoms. The ulcer was cauterized and for several days the lesion was dressed with some ointment, by the advice of his physician. Upon applying for treatment the ulcerative process was found to have invaded fully two-thirds of the entire prepuce. Radium exposures were now begun and continued as in the previous case, with similar results, except that the process of healing was much slower, probably due to the fact that it was impossible to include the entire area at each exposure. This case is still under treatment, and at the present time is entirely healed, with the exception of one very small area at the extreme edge of the lesion. In all, thirty-six exposures have been made. A recurrence of the phagedenic condition took place upon omitting the exposures, as

in the previous case. The same method of dressing was employed, and no cauterization or internal medication was used. A vesicular dermatitis appeared for some time upon the healthy skin of the penis, but subsided without treatment. No inguinal adenopathy occurred. Cicatricial contracture has caused some œdema of the prepuce.

CASE III.—Mrs. R.; age, 31 years. Diagnosis, recurrent carcinoma. Two years ago had a vaginal hysterectomy performed for uterine carcinoma. For three months had noticed an increasing vaginal discharge, watery in character and very foul. Had lost considerable weight and was very cachectic. Examination showed a hard nodular mass involving the right broad ligament and a sinus leading to it from the vagina; there was also a smaller sinus leading from the rectum. The discharge from the vaginal sinus was in considerable quantity and very foul, while the mouth of the opening was ulcerated. As this case was considered inoperable, experiments with radium were commenced. After having received some ten daily exposures the discharge almost entirely ceased and the ulcerations at the mouth of the vaginal sinus disappeared. For a period of some two weeks following this time the patient did not report for treatment, and when again examined the original condition had recurred, or, if anything, was worse. Since then this patient has received some twenty-five exposures,—thirty-five in all,—but the improvement first noticed has never been entirely regained and she is fast losing ground. One result of the treatment seems to be an entire absence of odor from the vaginal discharge, and the sinus leading from the rectum appears to be permanently closed. This case has been rayed entirely through the vagina, as it was found impossible to sufficiently dilate the anus for rectal exposures. There appears to have been little or no action upon the deeply seated growth in the broad ligament. Daily vaginal douches of plain water and a vaginal pack of plain gauze have been used. No internal medication was employed.

CASE IV.—Mrs. A.; age, 35 years. Diagnosis, carcinoma. Condition present for one year. Examination showed carcinoma of the cervix, with involvement of the body of the uterus and left broad ligament. Radical operation was considered to be contraindicated, but a thorough curettement of the cervix

was done, preliminary to the experimental treatment with radium. Some forty vaginal exposures, covering a period of two months, have been given. At present the cervical stump has healed in about two-thirds of its area, there is no hæmorrhage, a very slight odorless discharge is present, and menstruation has been normal. The patient has no pain. The cervix is soft, but the fundus and the growth in the broad ligament remain hard and have, apparently, undergone no change, although no increase in size can be demonstrated. This case is still under treatment. Plain vaginal douches and pack used. No internal medication.

CASE V.—Mrs. W.; age, 51 years. Diagnosis, axillary adenitis. One year ago had double breast amputation done for suspicious new growth formations. At the time of operation both axillæ were explored with negative result. Four months ago a small nodule appeared in the left axilla, which increased in size and became painful. When the radium exposures were commenced this nodule was the size of a marble and very hard. After ten exposures it began to decrease in size and continued to do so until it became hardly noticeable, and there has been no increase in its size up to the present time. This glandular enlargement was, presumably, malignant in character.

CASE VI.—Mrs. F.; age, 57 years. Diagnosis, recurrent carcinoma. Four years ago had breast amputation for carcinoma, and during the following two years was twice operated upon for recurrences. When first seen had a double chain of nodules, some as large as pigeon's eggs, following the side of scar into the axilla and completely filling it. These nodules were rapidly increasing in size. General health apparently good. One of the largest tumors was removed for examination and proved to be carcinomatous. This case has had thirty-five radium exposures. Several of the enlargements—those nearest the sternum—have noticeably decreased in size, but no change has been noted in those situated at the outer aspect of the scar and in the axilla, although none of them have seemed to increase in size. A marked dermatitis occurred in this case, but promptly disappeared when the exposures were omitted for a few days, and has not recurred. Still under treatment.

CASE VII.—Mr. W.; age, 54 years. Diagnosis, carcinoma. One year ago first noticed growth in throat. Examination

shows lateral one-half of tongue, at base, stony hard, and fungating mass involving the posterior pharyngeal wall and region of left tonsil. Larynx could not be examined, as the rigidity of the tongue prevented the introduction of the laryngoscopic mirror. There was considerable difficulty in phonation, respiration and deglutition. Considerable induration could be felt below the angle of the jaw. This case has been exposed to radium—both through the tissues of the neck and from the mouth—for twenty-two sittings, and while no change can be noticed by inspection, the patient assures me that he suffers much less pain and can swallow with much less difficulty, while his phonation is certainly clearer. Still under treatment.

CASE VIII.—Mrs. P.; age, 78 years. Diagnosis, epithelioma (rodent ulcer). Four years ago fell and struck upon right side of face. Shortly after this an ulcerated spot appeared directly under right eye, which refused to heal, although frequently cauterized by her physician. Later this ulcer was treated with some “cancer paste.” When first seen the ulcerated area was the size of a silver half dollar directly below, and partially involving the lower eyelid on the right side. This case has been rayed only twelve times, and yet the same changes have taken place which were mentioned in speaking of the first two cases, *i.e.*, a distance line of demarcation has been established at the margin of the growth, the base has assumed a healthy appearance, and cicatrization has commenced. Discharge and fœtor have entirely disappeared. Plain gauze dressings used. Still under treatment.

CASE IX.—Mr. D.; age, 31 years. Diagnosis, tubercular adenitis. Gives a typical tubercular history, and physical examination shows signs of beginning consolidation at the apices of both lungs. Has multiple enlarged glands in the anterior triangle of the neck, and in the supraclavicular and axillary spaces. One group of enlarged glands directly below the angle of the jaw were selected for the experiment, and have been exposed to radium for six sittings. They have very noticeably decreased in size, as compared with similar lesions in different areas of the neck, have become harder, and have not tended to break down. No dressing or medication used. Still under treatment. (Several other cases are under treatment, but have not progressed sufficiently to warrant any report upon them at this time.)

That radium possesses a certain amount of therapeutic value is, I believe, demonstrated in the results obtained from the experimental treatment of these cases; but before a therapeutic agent can be said to be surely efficient in any given lesion or condition, it must have been proven over and over again, hence it is unwise to make any positive statements based upon the results here obtained. It would seem that, like the X-ray, radium shows better results following its use in those conditions which are superficial and circumscribed, for the rays do not appear to have sufficient penetrative power to reach deeply seated lesions, and it is hardly to be expected that any form of radiotherapy would be of much value in the treatment of those conditions which are systemic in character: it would, rather, seem to be a local agent, to be used against local conditions. With radiumized solutions for injection and internal administration I have had no experience, but I should think their radioactivity—judging from the activity imparted to solids—would not be of sufficient stability to warrant the hope of very much therapeutic action. Just how the rays act upon diseased structures we do not know, and it remains for the future, especially when we have a greater knowledge of the pathogenesis of new growth formation, to explain their action. As compared with the Roentgen ray it may be said that its power of penetration is much less, but it can be used where it is practically impossible to use the X-ray, and it has the advantage of being entirely portable as well as having its rays produced intrinsically; but, on account of its lesser power of penetration, its sphere of action must be necessarily more limited. The scarcity of radium and its high price have both tended to prevent a more general experimentation with it in the past, but it is to be hoped that the experiments now being made with radium-bearing ores found in this country will obviate these difficulties in the near future, so that its full possibilities as a therapeutic agent may be demonstrated. In closing I wish to offer my thanks to those members of the Visiting Staff of the Hahnemann Hospital who have so kindly allowed me to treat some of the ward- and out-patient department cases at that Institution, and to the members of the Club who have taken such an interest in these experiments and have helped me by advice and suggestion while the cases were under treatment.

Discussion by Dr. W. W. Knowlton.

While the paper just presented by Dr. Benson has been very interesting and instructive, yet I find it very hard to discuss a subject about which so little is as yet definitely known, and with which I have not had any personal experience.

From what I have learned in this paper, and from what I know regarding the therapeutic use of the X-ray, I can only draw conclusions as to the future possibilities of radium as a therapeutic agent.

The X-ray has now been in use a sufficient length of time to give us some idea as to what it will do. Taking the X-ray as a guide, I shall endeavor to point out some of the possibilities of radium as a therapeutic agent in diseases of the skin.

Dr. Benson has found from his experiments with radium, that only comparatively small surfaces can be treated at a time; hence I should conclude that until radium can be obtained in sufficient quantity, or until some means is devised, whereby the rays may be directed over a considerable area simultaneously, that diseases involving a limited area are the ones from which we must expect to get the best results by its use.

The Doctor also finds from his experiments, that radium has a lesser power of penetration than the X-ray; hence it is of most value in superficial conditions. While this fact may favor the use of the X-ray in carcinoma and diseases of that character, yet I do not think that it will militate against its successful use in many diseases of the skin, most of which are comparatively superficial.

When the X-ray was first put into practical use some dermatologists thought that the millenium in skin diseases had come, and that the days of greasy salves and dirty lotions were to be a thing of the past, but, like many discoveries in the medical world, this cure-all is gradually seeking its therapeutic level, and in a few years will simply be looked upon and employed as *one* of the therapeutic agents for the relief and cure of disease.

That the X-ray is a very valuable remedy in the treatment of diseases of the skin is certain; that it is also a very dangerous agent in many instances has also been demonstrated.

Experiments with the X-ray in the treatment of diseases of the skin have shown it to be of more or less value in a number

of dermatoses, particularly lupus vulgaris, lupus erythematosus, epithelioma of the skin, mycosis fungoides, keloid, psoriasis, chronic eczema, lichen planus, sycosis non-parantica, seborrhoeic diseases and acne.

In the past year I have seen many reports concerning the treatment of lupus vulgaris by the X-ray; the results in many instances were very good, but in some were more or less discouraging.

Epithelioma seems to be particularly vulnerable to the X-ray, and many are the good reports that I have seen from its use.

Keloid, which has resisted both surgical and medical treatment, seems to have found its master in the X-ray.

The reports upon the treatment of psoriasis, chronic eczema, lichen planus, sycosis, acne, etc., are sufficiently good to give us encouragement to further push our experiments, but we must not expect too much, as I have said before the X-ray has its therapeutic limit.

Just what radium will do is, of course, problematical.

In lupus erythematosus I look for most gratifying results, as the disease is quite superficial.

In lupus vulgaris I am at present, at least, somewhat skeptical. Dr. L. Duncan Bulkley reports a case in which he had applied radium fourteen times to a patch of lupus vulgaris in a boy aet. 14. The results of the exposures, which had been made every other day, had had little, if any effect, upon the lesions.

In psoriasis, chronic eczema, lichen planus, and diseases of this character, where we have comparatively superficial lesions, I look for the best results from the use of radium, and I think that future experiments will demonstrate that we have added another valuable agent to our therapeutic armamentarium.

CORNEAL ULCERS.—In his excellent article upon this topic, in *N. E. Med. Gazette*, Dr. J. Miller Hinson mentions the fact that *calcareo iodata*, 1x to 3x, cures recurrent ulcerations in scrofulous subjects, even when iodide of potassium has failed. In one case, the author could not decide between congenital syphilis and a scrofulous condition. Potassium iodide failed to cure, but *calc. iod.* was prescribed with satisfactory results. *Calcareo phosphorica*, 3x, is of value in ulcers occurring during dentition, and in cases complicated by adenoids.

THE INDUCTION OF PREMATURE LABOR BY THE INELASTIC BAG OF
CHAMPÉTIÈRE.

BY GEORGE R. SOUTHWICK, M.D.

(Read before the American Institute of Homœopathy.)

IMITATION of Nature's methods of effecting normal delivery is one of the first axioms of obstetrical practice.

The importance or mechanism of the bag of membranes in dilating the cervix uteri needs no explanation here. It is rather a question of finding an agent which can closely imitate or supplement the action of this bag of membranes. Various attempts have been made without much success. The elastic rubber bag of Barnes was a disappointment, partly on account of its shape and partly on account of its elasticity, as that it had no known dimensions under pressure, and consequently little dilating power. It was difficult to keep in place. It broke easily and dilated irregularly. Champétière remedied this fault of elasticity by lining rubber with thin linen and making a cone-shaped bag with a stout rubber tube attached to the apex of the cone. This insured a strong bag of definite shape when fully distended, and a known capacity according to the size of the bag used. Complete expansion of the bag is easily determined by measuring the amount of liquid injected into it. If such a bag is rolled together, and with the aid of slightly curved forceps inserted in the cervical canal with the base of the cone a little above the internal os and the apex of the cone down, it will represent quite accurately the wedge of the bag of membranes, which is imitated still more closely by gradually filling the bag with sterile water. The hydrostatic pressure is evenly distributed and the dynamic effects of the natural bag of membranes is obtained as well. As the artificial bag is much stronger than the natural bag, it is a much more powerful dilator. Traction on the bag by the hand or a weight attached to the stout rubber tube supplements the pressure of the presenting part and greatly increases the dilating power of the bag. In other words we have an effective dilator of the entire genital canal. It closely imitates Nature's mechanism and is under the control of the

operator at all times. It is better to use a small bag till the cervix is at least half dilated, for, if too large a dilator is first inserted and traction made, it tends to elongate the cervix at first instead of expanding it. Dilatation is hastened by continuous vaginal douches of hot water. The large bag can be used to dilate the entire genital canal, as it is gradually expelled, aided by traction from below. This is of no little importance, as it protects the delicate head of an immature infant from pressure, which Nature cannot do to the same extent. This enables us to save many a delicate infant, as the pressure of ordinary childbirth causes a high mortality in premature infants.

Various modifications of these bags have been made, but the essential principles of an inelastic conical bag of known dimensions have been retained.

They are well suited for the induction of premature labor in all cases where great haste is not necessary and where there is hope of saving the child. It is an effective tampon in placenta previa, and has materially modified the classical treatment of this anomaly by version.

The writer has used these bags in suitable cases for several years with most satisfactory results. Their principal merit consists in accelerating normal labor under control of the operator, securing a natural and complete dilatation of both the cervix uteri and vagina, without undue laceration of either, and in saving a delicate child from pressure, as the birth of the child follows immediately after the expulsion of the large bag. As labor is under the control of the operator, and is thus made an operation of election, ether can be used freely to keep down a threatened convulsion, and uterine contractions will be maintained by the dynamic effect of the bag on the cervix uteri. The following case illustrates the advantages of this form of dilator:

A primipara of 30, frail and poorly nourished, had acute hyperæmia of the kidneys at six months of pregnancy. In spite of most careful treatment, it was apparent that she was on the verge of convulsions two weeks later. Most of the urine solidified on boiling and the solids diminished. She became nearly blind, and epigastric pain appeared before the family would consent to interference with pregnancy, as they especially de-

sired a living child, which was very doubtful, when twenty-six weeks of pregnancy was the most that could be allowed.

A moderate-sized bag was inserted at nine in the morning and replaced by the large one two hours later, with the aid of a little ether. An hour later she had a slight convulsion. Ether was continued and the cervix and vagina were soon completely dilated, the bag was expelled, and immediately after a diminutive baby was born, crying feebly, but with fair respiratory power, though somewhat blue. It weighed scarcely two pounds and a half, and there seemed little chance to save it. It could have been placed quite easily in a pint measure, and its father's finger ring would slip up on its thigh or over its shoulder. The child survived with the aid of constant watching, a little stimulant, an incubator, and a good wet-nurse, when the baby was strong enough to nurse. This little girl is now small, but healthy, 5 years old, and a source of great joy and comfort to her parents. The writer is confident that such a result could not have been obtained if the bags had not protected the child to a large degree from the traumatism of ordinary labor.

ALOPECIA AREATA IN CHILDREN.

BY FREDERICK M. DEARBORN, M.D.,

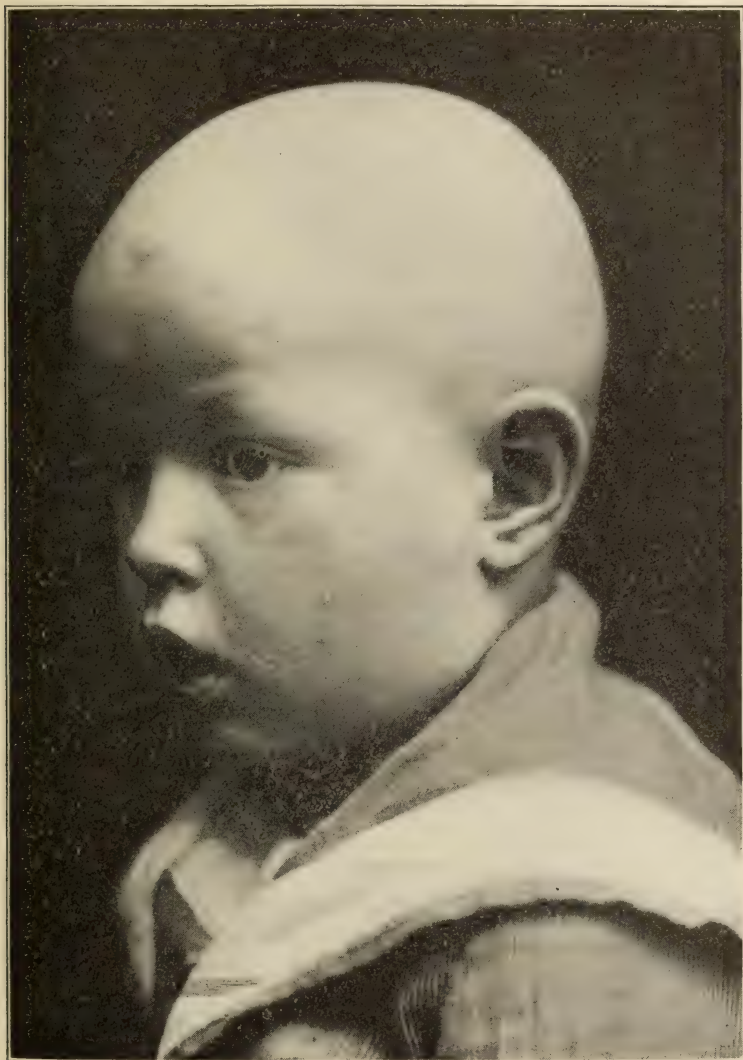
Lecturer on Dermatology, N. Y. Homœopathic Medical College; Lecturer on Dermatology,
N. Y. College and Hospital for Women.

(Read before June Meeting of Homœopathic Medical Society of the County of Kings, N. Y.)

THIS affection, though comparatively common in the realm of skin diseases, is not often seen in general practice. It should be described as a non-symptomatic, primary, circumscribed loss of hair, generally of the scalp, but exceptionally of any part of the hairy surface, and is due to parasitic or neurotic causes, possibly both. Probably 40 per cent. of all sporadic cases and 80 per cent. of all epidemic cases appear in children under 15 years of age; hence its discussion as a disease of childhood is appropriate, since it embraces a large proportion of all cases.

If seen early in its course, alopecia areata appears as one or more smooth, hairless, glistening white, round spots frequently in the occipital or inter-parietal regions of the scalp with short

hairs about the border of the patch which varies from the size of a pea to that of a quarter dollar. These short hairs, as well as some of the long ones about the border, can be easily extracted,



Case I.

or if left to themselves will fall out, thus causing an increase peripherally, usually in all directions. As a rule the areas do not increase beyond the average diameter of two inches. There are no scales present, no itching except a slight amount at the

onset, and nothing is visible with a magnifying glass except a few of the fine hairs which have never been destroyed or some which are just growing. Two or more spots may coalesce, forming elliptical or odd-shaped patches and very rarely complete alopecia, such as is shown in Case I. (a true neurotic type), may result. This patient, a boy of $3\frac{1}{2}$ years, first showed a small area in the inter-parietal region, which extended peripherally for six months until all the hair of scalp, eyebrows and eyelids had been lost. Then his mother consulted a physician who brought the child to my clinic at the Flower Hospital, where phosphorus, 6x, tablets, one every four hours was prescribed. Being of neurotic origin no local treatment has been used. The case has been under intermittent treatment for a year and has shown definite improvement, only to relapse on the omission of treatment.

On the other hand, Case II. is of parasitic origin and came to my notice about a month after its initial appearance, and demonstrated the coalescence of one small patch on the frontal region with a large inter-parietal one, altogether forming an irregular elliptical patch covered with a branny scaling of a seborrhœic nature. There was a history of ringworm in the same region some six months previous; however, no traces, microscopically, could be found of the fungus in the existing scales. Phosphorus, 6x, tablets, was given for six weeks and the following prescription for the last three weeks to relieve the seborrhœa:

R. Resorcin,	.	.	.	.	.	.	.	.	.	3ii.
Oil ricini,	.	.	.	.	.	.	.	.	.	3i.
Alcohol,	.	.	.	.	.	.	.	.	.	3iv.

M. Sig.—Apply night and morning.

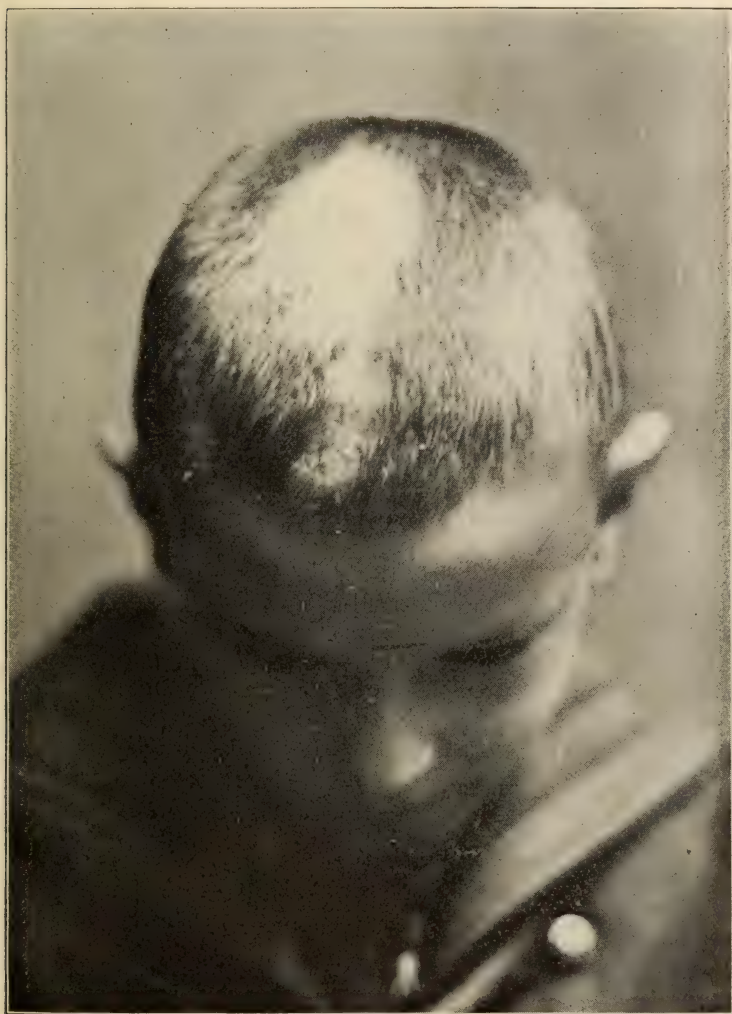
The illustration shows the case after three weeks' treatment with hair growing on all parts of the patch. Cure was complete in two months.

The citation of these two representative cases will serve to illustrate the two types of non-symptomatic alopecia.

The hair that appears after the disease is fine in texture and lighter in color than the original article. Frequently, the alopecia may repeat itself until the last crop will approach in color and texture the original. It is perfectly possible and not

uncommon for a person to have a number of attacks in a lifetime.

The *ætiology* of alopecia areata is a subject of much discussion, but the preponderance of evidence points towards its



Case II.

parasitic origin in 75 per cent. of all cases. Its clinical history, occasional epidemics in schools and in regiments, its occurrence endemically in certain localities, its prevalence in one family and a direct contagious history, besides the discovery, micro-

scopically, of a fungus similar to that of the tinea trichophytosis in some cases, all point to the parasitic origin. I know at least ten cases giving a previous history of tinea tonsurans, so it can, at least, be said to predispose. It might also be said that antiparasitic treatment alone will cure some cases; in fact, it is the only means used by the old school dermatologists. In the cases of neurotic origin the involvement is more gradual and often general in time if not arrested. In these types antiparasitic treatment frequently aggravates. Some few cases are due to traumatism, injury to nerves supplying the follicular growth, or interference with circulatory supply, but these do not show the characteristic short hairs about the border.

Pathological changes consist of inflammation of the corium with cell infiltration and thickening of the walls of the nutrient vessels with resultant poor nourishment and atrophy of the formative elements of the hair.

Diagnosis must be made of the symptomatic forms of circumscribed baldness principally by thorough investigation of each case; thus Favus runs a chronic course, showing yellow cup-shaped friable crusts, centrally pierced by a hair, mouse-like odor and permanent scarring. Lupus erythematosus usually occurs in adults, and presents a history of a violaceous color, minute follicular projections with adherent scales, causing in time atrophic scarring and permanent loss of hair, sharply defined. Syphilitic alopecia areata is hardly known in children, but, if necessary, a careful family and personal history should establish the diagnosis. Ringworm will show scales, short hairs all over the patch, papular raised borders, and the microscopic evidence of the fungus. Eczema of a vesico-pustular nature, simulating ecthymatous or impetigo-form lesions, will sometimes cause temporary baldness, but it gives a history of moisture, crusting and itching; a true folliculitis of the scalp will show the same symptoms when the exudation forms eczematous patches.

Prognosis is invariably good, in fact proportionately better in children than in adults. My records of 22 cases treated in the last year show that 14 were cured, 4 are under treatment and improving, 1 under treatment is not progressing (complete variety), and 3 (all dispensary cases) did not continue treatment.

Treatment.—The entire head should be thoroughly washed and the area affected should, in addition, be cleansed with ether or alcohol. Then, if a seborrhœic condition be present, the application twice daily of a 5- to 10-per-cent. resorcin in equal parts of alcohol and water should be inaugurated. If stimulation is needed for an anæmic scalp, the tinctures of nux vomica and capsicum, one or both, may be added in strength of 13 to a 43 prescription. Pure castor oil can likewise be added if excessive dryness exists, and if on the other hand the secretion of oil is excessive, fluid extract of ergot may be used. These prescriptions frequently suffice even for parasitic cases, but generally a mild antiparasitic lotion or ointment is demanded. Two per cent. of iodine in flexible collodion can be applied every third day, the old application being thoroughly removed beforehand; $\frac{1}{2}$ to 1 per cent. of ammoniated mercury ointment can be used daily; or bichloride of mercury, 2 grs. to 33 of alcohol and cologne water, equal parts, can be applied twice daily.

In stubborn cases chrysarobin gr. 20 to 13 vaseline or lanolin can be used. Pure carbolic acid can be applied at first and then followed by a milder antiparasitic prescription. Caustics like trikresol are seldom indicated in children. I believe all these strong substances should be used with great caution.

I use the high-frequency (D'Arsonval) electric current for all cases, once or twice a week for five minutes, if possible. The general stimulation and increased flow of blood to the parts affected, thus established, is most beneficial. Vibratory massage has been of some service to me in alopecia areata, but not in the marked degree that it has in alopecia prematura of adults. These two methods have superseded galvanic massage to a large extent. Radium has been used with success to restore pilary growth, but as yet its exact sphere in the treatment of alopecia areata is not determined. I have used it in cases occurring in adults with indifferent success.

Anything that contributes to the maintenance of general health should be urged, and in all cases I believe the indicated remedy should be prescribed, because the neurotic element is often coexistent with, or consequent to, the parasitic. In the neurotic types internal treatment is absolutely necessary, and local treatment is useless except to relieve seborrhœa, in fact

it frequently only serves to irritate an already tender surface. The following remedies have been used to great advantage: arsenicum iodatum, 3x, in the scrofulous type, associated with hard shotty acnoid papules; baryta carbonica, 6x, in the scrofulous type, with a marked tendency to alopecia prematura; calcarea phosphorica, 12x, in cases showing poor nutrition, frequent headaches, and general symptoms relieved by rest in recumbent position; fluoric acid, 6x, areas on left parietal region, or worse on left side, fulness and pressure in head, worse when sitting or standing; phosphorus, 6x, areas above the ears, scalp very dry, soreness and bruised pain, worse from pressure; vinca minor, 2x, in cases showing symptoms of heat with loss of hair; growth of fuzzy hair; pricking, biting and itching worse from scratching and better from warmth.

SHOULD THE ABDOMINAL CAVITY EVER BE FLUSHED?

BY DEWITT G. WILCOX, M.D., BUFFALO.

(Read before the Surgical and Gynecological Society of the American Inst. of Homœopathy.)

FROM the vast variety and contradictory measures recommended and employed for cleansing the abdominal cavity, one might be led to believe it was closely related to the proverbial balky horse, in which there was in vogue every grade of treatment, from supplication and prayer to profanity and clubs.

Starting with the original, no attempt at cleansing at all, we pass to the extensive packing period, the washing with chemicals period, the extensive flushing period with plain water, and lastly, the saline flooding period. The tendency now seems to work backward again, to the drought period. Whatever good may have been accomplished by flushing the abdominal cavity has, it seems to me, been more than offset by the harm done.

Some of the advantages claimed for the flushing of the abdominal cavity are: 1. That of stimulation by reason of the heat applied to the intestines. 2. The prevention of post-operative thirst. 3. The more thorough cleansing of the cavity. 4. The dilution of pus and other infective material. And lastly, the flushing of the kidneys and thereby the better elimination of waste products.

Let us consider to what extent these claims can be substantiated by actual experience.

1. Does hot water in the abdominal cavity materially stimulate the patient? In cases of excessive loss of blood from ruptured tube or other hæmorrhage, the addition of fluids to the body to increase blood-pressure becomes immediately essential, and there is no doubt but that the peritoneum will absorb, to a limited extent, such fluids, but that it will do so better than the bloodvessels themselves is a great error. My observation has been that the amount of stimulation which is obtained by flushing the cavity has been greatly overestimated, and to depend upon that entirely, when the patient is suffering severely from shock, is a mistake and is bound to lead to disappointing results.

2. Does the filling of the abdominal cavity, with saline or other fluids, prevent or lessen post-operative thirst? When this method was so popular a few years ago, I was under the impression that it did so lessen thirst, but the more I have since watched the results the more inclined I am to believe that such procedure has little if any effect upon the thirst of the patient. A better method of overcoming thirst is the washing of the patient's stomach immediately after the operation and then allowing her to have moderate quantities of water to drink.

3. Does flushing really cleanse the abdominal cavity? In cases where there is a quantity of blood and clots in the cavity, such as is found after tubal rupture or tubal abortion, a rapid flushing will turn out clots and free blood more quickly than any other method, and at the same time stimulate the patient's flagging energies. It is here that flushing may be advantageous, but in cases of pelvic abscess, appendiceal abscess, gall-bladder disease, or any condition of the pelvic or abdominal viscera, where pus has formed and been liberated by an abdominal section, I am of the opinion that the pus and other infective matter can better be removed by careful and thorough wiping than by flushing. It is understood, of course, that in every case of abscess, of whatever origin, that a careful walling off of the surrounding tissues has been made with sterile gauze before the abscess is opened. We know of a certainty that the peritoneum is tolerant of a certain amount of bacterial sub-

stance, and the omission to remove every vestige of pus from the abdominal cavity does not mean a fatal peritonitis, but when we ask the peritoneum to absorb quarts of water, however slightly diluted with pus, we are expecting too much of that peritoneum, and the failure to absorb and carry off that infected fluid may be the cause of a fatal peritonitis, or a septic infection. My method for dealing with pus tubes, for instance, now is, first, to protect the surrounding parts with a double layer of gauze before I begin my separation of adhesions; if the pus tubes rupture during the process of liberation, or if pus is found between the layers of adhesions, I instantly insert a quantity of loose gauze and absorb as much as possible, before it finds its way any distance from the seat of rupture. After the removal of the tube I go over every adjacent tissue, wiping it most carefully with gauze, and repeat the wiping until I feel well satisfied as to its cleanliness.

The last advantage claimed for the flushing is that it stimulates renal activity and thus favors elimination of waste and poisonous products. There is no doubt but that the addition of water to the abdominal cavity causes renal activity, as is very readily observed, but whether it favors a better elimination is a question; mere activity does not mean a more thorough elimination. A patient may pass a quantity of water without eliminating the necessary amount of urea. At any rate, I have not observed any better results upon the kidneys in cases where the abdominal cavity was flushed than I have in those where it was omitted.

Let us consider now a few of the disadvantages of the flushing method:

1. One cannot employ drainage to any advantage where the abdomen is filled with water, because it saturates the drain to such an extent that it loses all its capillary power and ceases to drain.

2. It is mussy, sloppy and untidy, tends to saturate the patient's clothing, the table and the patient's body, thereby rendering her more subject to cold and subsequent depression or shock.

3. It requires time which, in some instances, more than counterbalances the possible advantages claimed for its benefit as a stimulant.

4. Its regular employment, in infected cases, would tend to make the less experienced operator careless in his thoroughness of cleansing.

In my summary, I would therefore say that the only condition calling for the flushing of the abdominal cavity with fluids of any kind would be those wherein a quantity of free blood and clots had collected, and even in such cases I would not recommend it as a means of rendering the abdominal cavity more sterile, but rather as a quicker means of turning out the clots after the hæmorrhage had been controlled, for it is a well known fact that clots float to the surface when a stream of water is directed into the cavity, and as these clots may collect between the loops of intestines it might be a tedious task to find them and turn them out by any other means. But in all other conditions of the abdomen and pelvis, calling for section, I would recommend the wiping and drying method in place of flushing.

TUBERCULOSIS OF MESENTERIC GLANDS.

BY GEORGE F. SHEARS, M.D., CHICAGO.

(Read before Surgical and Gynæcological Section of the American Institute of Homœopathy.)

POSSIBLY I may best introduce my subject by the report of a case, to me of great interest, and in one which some pains were taken to definitely determine the exact pathological conditions present. Willie C., aged 10 years, healthy parentage and apparently in excellent physical condition, was brought to my office one morning because, some twenty-four hours before, he had complained of pain, colicky in character, in the right inguinal region. The pain was unaccompanied by vomiting and lasted about a half an hour. After the pain left there was some tenderness, and the little fellow having heard a great deal of appendicitis declared that he had an attack of appendicitis. His mother, to quiet him, painted the region with iodine.

Upon examination the patient showed a pulse of about 80, a temperature of $99\frac{1}{5}^{\circ}$, a tongue slightly coated, some tenderness on pressure at McBurney's point, but no appreciable distention of the abdomen. Believing this to be a light attack of ap-

pendicitis I sent him home, had him kept in bed, put him upon a liquid diet, directed that the bowels be thoroughly evacuated, and expected subsidence of all symptoms in a few days. Very little change, however, took place in symptoms during the first week. Each day, usually in the early morning, there was pain for about a half an hour. At 5 or 6 o'clock P.M. the pain returned, for from one to three-quarters of an hour, the temperature running from $98\frac{1}{2}^{\circ}$ to 100° , but ordinarily not more than $99\frac{2}{3}^{\circ}$; pulse regular and not accelerated.

At the end of the week the pain ceased for a day or two and I allowed him a little more extensive diet; but upon its return I again ordered the liquid diet, the retention in bed, and the maintenance of free movements from the bowels. This treatment was continued for three weeks without any improvement, when I urged that an operation be made, believing that we had a simple case of chronic appendicitis. The parents desired consultation with a prominent old school physician. He confirmed the diagnosis, and united with me in the advice for operative proceedings. The operation was made in the usual way.

The appendix was found slightly thickened and was removed. Near the base of the appendix and in the mesentery of the cæcum was found an enlarged gland about the size of a bird's egg, and near it several smaller ones. All were removed, the mesenteric membranes stitched up and the abdomen closed. The pain ceased immediately and was never again present. Convalescence from the operation was very prompt, with no complications, except that the temperature was above normal at some period during each twenty-four hours, usually at 11 o'clock A.M., at which time the thermometer registered from $99\frac{1}{5}^{\circ}$ to 100° . The appendix and the enlarged glands were sent to our pathologist, Dr. W. Henry Wilson, who made three slides and submitted the following report:

"I have examined the appendix and lymph gland recently submitted. The appendix is enlarged more in one diameter than the other. In other words, a cross-section has an oval outline. Correspondingly the wall is not uniformly thickened. The mucous surface appears to be normal, as is the external limiting membrane. The important changes are in the sub-mucous tissue. The lymph nodes are enlarged and the tissue

surrounding is infiltrated with round cells. I find in it no areas of necrosis or of cheesy degeneration. The lymph nodes show some signs of injury, in that they fall out readily. By reference to the two photographs of cross-sections several large holes will be noticed in the wall of the appendix. These were the locations of lymph nodes which have fallen out. In Fig. 2, on the right-hand side, will be noticed a cavity in the wall which opens into the lumen of the appendix. It has all the appearance of an ulcer. The walls of this cavity do not show the tissue elements that would be expected in an ulcer exposed to the infections usually encountered here. I find no tubercles in this specimen. There is probably no tissue changes here, however, which might not be caused by a tubercular infection.

"In the gland the connective tissue framework is slightly increased. That portion of the gland which receives the lymph supply is densely infiltrated with round cells. The greater part of the gland is divided into areas having the typical structure and arrangement of tubercles. In nearly all of these is the characteristic giant cell in the middle, with the epithelioid cells surrounding it, but more or less obscured by the advancing necrosis. Around the border of each of these tubercles is a border of round cells. In a general way the tissue is mapped off into light and dark fields or spots, as shown very imperfectly in Fig. 3. The light areas are the areas of necrosis. This specimen from the gland is tubercular.

"You will notice that the lymphoid tissue is rather abundant in this appendix. This is partly due to the youth of the patient. You will also notice that the lumen is of good size and free from foreign elements, such as pus, etc. The whole general makeup of the appendix is that of acute catarrhal inflammation. It is quite possible that the organism which caused this acute catarrhal inflammation excited some inflammation in the periphery of the gland which we are examining. I believe, however, that the tubercular infection of the gland antedated this acute inflammation of the appendix." The slides made by Dr. Wilson were then submitted to the Columbus Laboratory, and the following report received:

"The slides are three in number, one marked lymph node, one marked appendix and one unmarked, carrying a section of appendix and of lymph node. The lymph node is tubercular.

It shows island arrangement, focal necrosis, and a great abundance of giant cells of the tuberculosis type. The appendix sections show considerable lymph node hyperplasia. I find no giant cells and no focal necrosis in the enlarged lymph nodes. There is no histologic appearance by which we can determine that these enlarged lymph nodes from the appendix are tubercular."

It seemed evident from these reports that this was a case of tuberculosis of the mesentery glands. The case was, therefore, kept under close observation. As soon as the patient had recovered from the immediate effects of the operation a nutritious diet was given, and later forced-feeding resorted to. Phosphorus, calcarea carb. and sulphur were given according to indications. The child left the hospital apparently well, but inasmuch as the temperature reached a degree above normal each day I still felt apprehensive, as remedies, good feeding and outdoor life seemed to have no effect.

About this time my attention was called to an article by B. R. Rachford, in the *Archives of Pædiatrics*, December, 1901, in which he advocates the use of guaiacol in the treatment of tuberculosis in infancy, recommending the following inunction:

R. Guaiacol,	4 (3i).
Lanolin,	8 (3ii).
Lard,	20 (3v).

M. Sig.—One level teaspoonful to be rubbed into the chest at bedtime each day.

He says, "this prescription I have used for the past eight years in almost every case of tuberculosis in infancy and childhood which I have had an opportunity to treat, and the experience which I have had with this prescription in many hundreds of cases has convinced me of its great value. It is a well known fact that guaiacol is one of the few drugs which, when it is applied to the skin, is rapidly absorbed by the lymph channels, and is in that way carried into the general circulation, producing a physiological action of the drug. It is of great value in the treatment of a lymph node tuberculosis of infancy and childhood, and in all probability the good results depend upon the fact that by inunction it can readily be brought into contact with the lymphoid tissue, and in that way can act as an

antiseptic." I had a level teaspoonful of this ointment rubbed into the skin over the abdomen, night and morning, the rubbing occupying ten or fifteen minutes. Inasmuch as the weather was cold and outdoor exercise was rather difficult, I advised the patient being taken to a warmer climate, and he was accordingly taken to Florida, where he remained for two months, remedies, inunction and diet being continued.

No great change was noticed in the temperature until six weeks had elapsed, when there began to be a remission in the daily rise, and eventually the normal point was maintained during the entire day. Two months have now elapsed. The patient seems in perfect health, good flesh, good appetite, sleeps well, bowels move normally, and no sensitiveness nor enlargement can be noticed in the abdomen. Whether the inunction was a potent factor in the improvement I am unable to decide. It certainly was a great comfort to the parents, and on the principle that "it can't do any harm and may do some good" may be recommended for your consideration.

I have reported this case because, if my reading and experience are not at fault, mesenteric tuberculosis as a primary trouble is comparatively rare, and its discovery at an early date in its history is still rarer. This case is not to be confounded with either intestinal tuberculosis as a complication of pulmonary or miliary tuberculosis, rather common conditions, or those rarer conditions of primary tuberculosis of the intestines in which the initial lesion is in the intestines, and there develops afterwards the inflammation of the lymphatics of the mesentery, the whole in due time forming a large tumor.

Most of the cases of intestinal and mesenteric tuberculosis belong to one of the two classes. In 1000 tubercular subjects examined post-mortem in the Pathological Institute of Munich, between the years 1886 and 1890, only 1 case of primary intestinal tuberculosis was noted. While in 566 cases secondary tuberculosis was seen, and in these cases of tuberculosis no case confined to the mesentery was reported. Bovarid, in the *Archives of Pædiatrics*, says, that out of 369 post-mortems, in cases of primary tuberculosis made in the Foundling's Hospital, only 5 cases of primary tuberculosis of the intestines were discovered.

It is true that in both of these instances the cases had pro-

gressed to a fatal issue and the initial point of the disease might be difficult to decide. Recent observers find the disease to be more common; thus Woodhead, out of 100 cases in which the mesenteric glands were involved, found 14 in which there were no tubercles in other parts of the body. Carr found the mesenteric glands infected alone five times out of 150 cases. Osler says those cases are often spoken of as consumption of the bowels, but there are many cases of mesenteric involvement in which the intestines do not present tubercular lesions. Rotch says that in the majority of cases of tuberculosis ileocolitis is secondary to tuberculosis elsewhere, and in such cases frequently follows tuberculosis of the mesenteric glands. Orth and Wesner say that the mesenteric glands are occasionally found infected in animals without the mucous membrane showing any tubercular lesion. That the disease may then be primary there is no doubt.

In the case reported, the pathologist, Dr. Wilson, makes the suggestion that the tubercular infection of the gland antedated the acute inflammation of the appendix. Whether this is true or not it may be very difficult to determine. It is quite possible that a low grade of inflammation might exist in the appendix, due to the presence of bacilli or to other causes, and that bacilli might pass through the intestines, the point of entrance escaping infection. The majority of the bacilli enter the lymphatic spaces and are, therefore, naturally arrested by the first filters, the lymphatic mesenteric glands, where they set up tuberculosis, and from this as a centre infection may extend in various directions. By a reversed lymphatic current the bacilli may be carried back to the intestines and infect the original point of entry. The opportunity for the study of these cases at an early date has until recently been very limited, such cases not being brought to the attention of the surgeon until a tumor presented.

The frequency with which the abdomen is now being opened for the treatment of intra-peritoneal disease affords an opportunity for wider observation of disease in its earlier manifestations. Already the surgeon has added much to the knowledge not only of recognized surgical disease, but to the pathology, the diagnosis and prognosis of disease formerly believed to be wholly in the domain of internal medicine. The privilege of

seeing the operation of disease in the living comes at the present day frequently to the surgeon. If he utilizes his opportunities definite knowledge concerning intricate abdominal conditions may take the place of the imperfect theories upon which so much of our treatment is based. If he will observe not only the conditions for which the operation is made, but also the anatomy and pathology of accompanying and conflicting lesions, many diseases now obscure, because recognized only at a late period in their development, may be separated from their complications and become amenable to early surgical or medical treatment. The triumphs attained by the surgical treatment of appendicitis may be extended to other abdominal diseases and accurate and natural methods take the place of doubtful theories and inaccurate treatment. It is reasons of this character that have led me to give so much time to the conditions found in the case reported, because, as said before, they were observed at an early period in the history of the trouble. Few cases have been recognized at this time, and in a majority of the cases in which the abdomen has been opened for the purpose of treatment, some other lesions seem to be most prominent, and the mesenteric disease was not promptly diagnosed.

Ruben Peterson, from whose articles some of the statistics quoted have been taken, reports two cases of mesenteric tuberculosis occurring in one family. In this family there were three sisters. The first sister died of what post-mortem proved to be general abdominal tuberculosis. When the next sister, a girl of 17, began to have abdominal pain and tenderness with localization to the right and above the umbilicus, he advised an operation, and found enlargement of the mesenteric glands. These glands upon removal and examination proved to be tubercular. The patient recovered. The third sister, a delicate child of 11 years, soon after began to complain of general abdominal pain with much prostration, and, finally, of localization of the pain and tenderness at the point of localization. In her case the abdomen was also opened. A similar condition found and relief obtained by operation. In neither of these cases was the appendix involved.

A perusal of the history of these cases has led to the inquiry in my mind, was the pain experienced by my patient due to

the enlargement of the lymphatics or to the presence of a low grade of inflammation of the appendix? In studying the symptoms of the cases reported by Peterson, my own case and in the one reported by Lucas, in which operation determined tuberculosis of the mesentery, I find that in each case the patient complained of constant deep pain. That there was constipation, with some slight distention of the abdomen, and when the disease had existed for some time emaciation followed. In one of these cases the pain was intermittent, as in my own case, but in this case the lymphatics were those of the cæcum and appendix. The colicky pains complained of in the case, non-accompanied by appendical disease, were not acute, nor did they seem to have any definite relation to the nausea and vomiting. Tympanitis and diarrhœa were noticed in one of the cases that had existed for a long period of time. The prognosis of these cases may be judged by the reports already made. It seems probable that if operation could be made at an early date that many of these patients might be cured, and that very favorable results obtained in the treatment of tuberculosis of the cervical glands might be duplicated in mesentery tuberculosis were the operator able to make his diagnosis at an early date and to apply the same radical measures as has proven so successful in the treatment of external tuberculosis.

MESENTERIC THROMBOSIS.

BY ELMER H. COPELAND, M.D.

(Read before the American Institute of Homœopathy at Niagara Falls, June 22, 1904.)

To bring this subject to your attention, I shall reverse the usual order of procedure and report the case first, and report it somewhat more minutely than is customary, because of the scarcity of literature upon the subject, giving the general treatment, followed by the reports of the operation, of the autopsy, and, lastly, giving the anatomy, history and pathology and general considerations.

The patient was a man in active business, 61 years old, and of good habits. My first visit was on Saturday, February 6,

1904, at 7 o'clock A.M. He complained of pain in the left inguinal region extending between the crest of the ilium and lower border of the ribs. On examination some tenderness was found in this locality. Temperature by mouth, 96.5° F. The temperature was taken twice, to be sure there was no mistake. Pulse and respiration normal. He complained of nausea, but did not vomit. Patient had had several ineffectual attempts at stool during the night, and said he had not had a movement for forty-eight hours, that is, not since the previous Wednesday night, when he had a normal stool. Began treatment at once by giving calomel, one-fifth grain doses every half hour, until he had taken two grains and a half. At my next visit, the noon of this day, Saturday, he had had no result from the calomel, but pain was relieved. After ordering a dose of sulphate of magnesia, I went to my office for a rectal tube. Salts were vomited as soon as swallowed. Gave a high rectal suds enema of about a quart. It was returned slightly discolored. Gave second larger enema. No result. Finally a third was given. This brought away some small, hardened feces. Not being satisfied, I then gave a high enema of sulphate of magnesia and water. This was returned only slightly discolored. I then discontinued the enemas and began giving him half-ounce doses of a saturated solution of sulphate of magnesia, to eight ounces of which had been added sixty minims of sulphuric acid, U. S. P. He took the entire quantity during Saturday night and early Sunday morning, during which time he had five watery evacuations, expelled with considerable gas. Patient felt much relieved and we were hopeful the obstruction had been overcome. He remained comfortable all day Sunday: temperature not above 98°, pulse normal.

Sunday night there was a return of the pain in the left inguinal region, and I was summoned hastily at about 9 P.M. Some high enemas were given, with no result. Nothing we did relieved the pain until quarter of a grain of morphia had been administered hypodermically. Gradually he was relieved, and fell asleep at about 10.20 P.M. After ordering more sulphate of magnesia to be taken at intervals during the night, I left.

Monday morning my first call on him was made at about 7 A.M. The patient reported a comfortable night and an evacua-

tion of "a lot of gas" with slight fecal matter; but still the pain continued and the man looked sicker than he had previously. I determined to give medicine one more trial, and, should that fail, call in a surgeon. I administered, at 10 A.M. Monday, one drop of Croton oil in sugar. At noon there had been no result. I repeated the dose at 1, 2 and 3 P.M. Still no result. Dr. — was called in consultation. After an examination of the patient, we agreed to call a surgeon from Boston, who arrived at midnight. He advised an operation at once, which was performed at 12.30 in the morning. Incision was made in the abdomen, turning to the left of the umbilicus, about seven inches long. The intestines were carefully examined for their entire length. No obstruction was found, except possibly from bands of adhesions over the sigmoid, but at several points the intestines showed "dark spots." The entire small intestine looked "sick," *i.e.*, of a dark-red, Bologna-sausage color. The bowels were given a toilet of normal salt solution and returned, wound closed with catgut and patient put to bed at 1.30 A.M.

There was no vomiting from the anæsthetic, and Tuesday morning patient was quite comfortable: pulse, 102; temperature, 100°; respiration, 25. In the afternoon the patient complained of pain in the abdomen. Ordered an enema of sulphate of magnesia, glycerin and water. No result. Followed this with large suds enema. Some gas was expelled, but no fecal matter. Patient relieved. Tuesday night pain returned more severe. Patient was restless: pulse, 120; temperature, 101°; respiration, 30. Ordered a rectal injection of six ounces of asa-fœtida. Patient relieved of nervousness and slept at intervals during the night. At 4 A.M. Wednesday gave quarter of a grain of morphia for relief of pain. Patient slept until about 7 A.M. Abdomen somewhat distended: pulse, 108; temperature, 100 $\frac{4}{10}$ °; respiration, 20.

All efforts Wednesday to move the bowels were futile, not even gas of any amount expelled. Wednesday evening temperature 103°. Patient began to vomit a greenish, watery material. Pulse irregular and very weak. From this time he sank rapidly. The abdomen became more distended. Patient died at 6.30 Thursday morning, fifty-three hours after the operation.

Autopsy performed at 10.15 Thursday morning by Dr. — and myself. The wound in the abdomen had made no attempt at healing. There was some slight peritonitis. We removed the bowels entire and examined them throughout their entire length externally. There was no twist or other obstruction to be discovered. We noticed spots of mortification at the cæcum (the appendix normal) and at several points in the course of the small intestine. These spots were about the size of a twenty-five cent piece, with one exception, namely, at about six feet below the stomach, the mortification went entirely around the gut and was about six inches in length.

To examine the interior of the intestines, we slit the large bowel down from the cæcum to the rectum and found a normal mucous membrane, except slight gangrene at the cæcum. The sigmoid flexure was markedly narrowed, large bowel empty. We next slit the small intestine upward from the cæcum to the stomach. On the mucous membrane were many small areas of mortification; the small intestine empty up to within six feet of the stomach; that is, to the point above mentioned, where was located the large portion of mortification. The mucous membrane here was gangrenous. Above this point began to appear fecal matter, and shortly the bowel was filled with it as far as the stomach. The contents were in a semi-fluid condition. The upper portion of the small intestine was somewhat distended, but not “enormously.”

Before the operation we had diagnosed this case simply “intestinal obstruction,” probably caused by intussusception or volvulus, and had advised an operation for the relief of this. The surgeon, before operating, was strongly suspicious that the obstruction was due to cancer. The evidence at the autopsy did not substantiate this idea, nor, as we have reported above, did there seem to be any intussusception or twist of the gut. Consultation with physicians in Boston led us to believe that we had dealt with a partial paralysis of the small intestines, that the paralysis was caused by mortification of the bowels, manifesting itself by the dark spots on the intestines noticed at the operation. (Some of these dark spots were proven at the autopsy to be gangrenous.) The above-mentioned mortification in turn being caused by mesenteric thrombosis or embolism.

As the arteries were not carefully examined at the autopsy,

no positive differentiation between thrombus and embolus could be made, but I use the general term of mesenteric thrombosis to cover either or both conditions. With this idea of thrombosis of the mesentery in mind, let us briefly go over the conditions we had here and then see how well the anatomy, history and pathology of this condition fit the case.

We had almost complete paralysis of the intestines with mortification well advanced at the time of the operation, two days and a half after the beginning of the attack. The mortification was located in various "spots" throughout the length of the small intestines from the cæcum to within five feet of the duodenum. There was one large area of mortification at the cæcum and several small areas in the ileum and more in the jejunum, the largest area of all being, as above stated in the report of the autopsy, in the jejunum, about six feet below the stomach. There was no mortification above this point in the jejunum or in the duodenum. If our theory be correct that the mortification was caused by a thrombus (and I wish to be distinctly understood as agreeing to the theory that the obstruction to the circulation might have been an embolus or a thrombus), the blood-supply to these various parts affected must come from branches of the artery below the point obstructed, and near-by portions of the intestines not affected must have a blood-supply independent of these branches supplying the affected parts. In other words, it seems to me possible to locate the exact point where the obstruction, either thrombus or embolus, occurred.

I have here an enlarged diagram taken from Gray's *Anatomy* representing the blood-supply to the intestines.

You will notice the superior mesenteric artery, which arises from the fore part of the aorta about quarter of an inch below the cæliac axis, supplies the whole length of the small intestine, except the first part of the duodenum. It also supplies the cæcum, the ascending and transverse colon. The inferior mesenteric artery arises from the left side of the aorta below the superior. It supplies the descending and sigmoid flexure of the colon and a large part of the rectum. The branches of the superior mesenteric are the colica media, colica dextra, ileo-colic and the vasa intestini tenuis. The colica media supplies the transverse colon. The colica dextra supplies the

ascending colon. The ileo-colic supplies the lower part of the ascending colon, the cæcum and the lower part of the ileum. The vasa intestini tenuis, with its network of branches and arches, supplies the upper portion of the ileum and of the jejunum.

Now, the spots of mortification, as you remember it was stated above, were located in the cæcum, ileum and lower part of the jejunum, none lower than the cæcum, none as high as the duodenum. Therefore, the obstruction must have occurred at the point where the superior mesenteric artery gives off the ileo-colic branch. If it had occurred a little higher, above the vasa, all that portion of the jejunum supplied by the branches of the vasa intestini tenuis would have been affected. But this was not the case, showing that the upper branches of the vasa were not occluded, *i.e.*, the branches supplying the upper portion of the jejunum. If the obstruction had occurred lower, *i.e.*, below the ileo-colic, the cæcum would not have been affected, as it was most markedly. One point more. If the ileo-colic was obstructed, why was not the lower portion of the ascending colon affected with mortification, as well as the cæcum? Because the superior branch of the ileo-colic which supplies the lower portion of the ascending colon anastomoses with the inferior branch of the colica dextra, which arises from the superior mesenteric above the point of our supposed obstruction, thrombus or embolus, whichever it may have been.

I have been at great pains to trace out this blood-supply, because it seems to me strong proof that this intestinal obstruction was due to mortification set up by the blood-supply being cut off by a thrombus or embolus. In other words, it was a true case of mesenteric thrombosis.

History and Pathology.—Mesenteric embolism and thrombosis are very rare conditions. Hemmeter, in his work, *Diseases of the Intestines* (1902), reports only 40 cases. Thirty-eight of these were reported in the literature upon the subject. One case occurred at the Johns Hopkins Hospital and one in Hemmeter's own clinical practice. Douglas, in his *Surgical Diseases of the Abdomen* (1903), mentions embolism and thrombosis of the mesenteric vein only. Faber and Litten had collected 20 cases up to 1875. The first 3 cases were reported by Virchow. An embolus in the mesenteric artery was the cause of the obstruction in the great majority of these cases.

The origin of the embolus was found in three different sources : first, endocarditis ; second, atheromatous degeneration of the aorta ; and, third, gangrenous pulmonary infarctions resulting in clots in the pulmonary vein. This last source was of very rare occurrence. Litten has described 2 cases of autochthonous thrombosis of the mesenteric artery. In the reported cases the superior mesenteric artery is the one most often occluded, only 2 cases having been reported where the inferior mesenteric was affected.

The embolus or thrombus in the superior mesenteric artery may occur at three different points. First, the main trunk may be occluded near its origin from the aorta, which would involve the entire small intestine, except the upper portion of the duodenum, and also the cæcum, ascending and transverse colon. Second, one of the large branches may be the site of the obstruction. This is the most common picture, involving the ileum and jejunum most often. In the case above reported, as you remember, we had a plugging of the main artery below the colica media at the point where the colica dextra arises. In these two classes of cases the diseased portion of the bowel would be continuous, with no healthy areas between. Third, one of the smaller branches or one of the very smallest terminal branches may be obturated. Here the areas of necrotic tissue would be separated by healthy tissue. All three classes of cases have been reported. It is usual to find hæmorrhagic infarcts in other portions of the body, as the spleen or kidneys.

The more minute pathological condition cannot be more concisely described than by quoting Hemmeter : " In a case which I observed personally, one of the large branches of the superior mesenteric was obturated by an embolus, in a male patient affected with arterial sclerosis and with calcareous deposits around the valves of the heart. Five feet and a half of the lower ileum were in a state of œdema, venous congestion and partial necrosis. The mucosa presented numerous areas of superficial necrosis, was of a greasy, brownish-gray color, and was readily detached by a stream of water running from an ordinary hydrant, upon which it was tied for the purpose of cleansing the intestine of its contents. Numerous ulcers were found, especially in the lower portion of the ileum, some of

them penetrating the serosa. The intestinal lumen was filled with extravasated blood of a tarry consistency. The walls of the intestines were immensely thickened, the tissues loose and flabby and replete with liquid, the chemical nature of which corresponded to a mixture of serum and a small amount of blood. All of the arteries of the intestines were empty and contracted. The veins of the intestinal wall, of the peritoneum, and of the mesentery corresponding to the obturated district, were enormously congested. On the peritoneal surface of the intestine, as well as in the mesentery and omentum, were small extravasations of blood. The individual intestinal loops were covered with recent formation of fibrin, and there was sero-sanguinolent peritonitic exudation. This case had presented itself with symptoms of intestinal obstruction and died before preparations could be made for operation."

Symptomatology.—The onset of these cases, whether embolic or thrombotic in origin, is very sudden. One of two symptoms will be prominent: either intestinal hæmorrhage or intestinal occlusion. The principal symptoms are pain, either occurring spontaneously or on pressure, vomiting, intestinal hæmorrhage and occlusion. The pains may be general throughout the abdomen, or they may be local and are colicky in nature. The spontaneous pains are more or less continuous. The case seen by me had marked periods of intermission. The pains caused by pressure are ascribed to peritonitis. The intestinal hæmorrhage, if present, may be contained in the stools, which may be regular, or there may be a more or less continuous oozing from the anus. If there is much hæmorrhage, either manifest or concealed, there will be a marked reduction of temperature and symptoms of collapse. In the case above reported the temperature by mouth was 96.5° F., with no hæmorrhage, apparently. At least there were no bloody stools, nor was there any positive evidence at the autopsy that there had been any hæmorrhage. The symptoms are almost typical of acute occlusion. On this point Hemmeter says: "It is evident that when complete suppression of fæces and flatus exists, with sudden, acute abdominal pain and no sign of intestinal hæmorrhage, the diagnosis of occlusion is very likely to be made." "There may even be fecal vomiting."

Differential Diagnosis.—This condition, while very rare, must

always be kept in mind when we are considering disease of the abdomen. Possibly its extreme rarity is more fancied than real and some obscure abdominal cases might be readily explained if we should always carry a picture of this disease in our minds. The diagnosis rests upon the above-mentioned symptoms and the possibility of demonstrating a source for the embolism, but we must not forget that cases do occur when there is no endocarditis, valvular disease, or arthritis demonstrable. It may originate in an atheromatous condition of the aorta, not manifesting itself during the lifetime of the patient.

The conditions with which it is most likely to be confounded are appendicitis, ectopic pregnancy and ovarian diseases in general, intussusception and volvulus, and perforation peritonitis. The pains in appendicitis may be located in any part of the abdomen, thus resembling mesenteric thrombosis; both may have nausea, and vomiting also, and both may have obstructed bowels, but in appendicitis not so obstinate, and there are no bloody stools. The temperature is different, being elevated, usually, in appendicitis, and subnormal in mesenteric thrombosis. Tenderness at McBurney's point favors appendicitis. Ectopic pregnancy and ovarian disease can be excluded by careful physical examination and a study of the history of the case. Diarrhœa and bloody stools, if present, eliminate perforation peritonitis, but increase the resemblance to intussusception and volvulus. The finding of infarctions in other parts of the body, with existing arthritis, endocarditis, or other sources for the embolus, may help to distinguish this condition.

If the characteristic symptoms of, first, excessive enterorrhagia, not from pre-existing intestinal disease, and, second, intense colicky pain, third, fall of body temperature, fourth, evidences of exudation and tympanitic distention, are all present together, the diagnosis can be made positively. "But," to quote Hemmeter again, "if anyone of them is wanting, particularly if there is no sign of intestinal hæmorrhage, the diagnosis is impossible, probably the nearest recognition of the correct state of affairs that will be made is the diagnosis of intestinal obstruction."

Prognosis and Treatment.—These cases are almost invariably fatal. An operation offers the only hope, when, if only a small portion of the gut is affected, it may be resected, the diseased

portion removed, the healthy ends brought together and secured with a Murphy button. Three cases have been reported as successfully operated upon in this manner.

THE APPENDIX AND ITS NEIGHBORS.

BY SIDNEY F. WILCOX, M.D., NEW YORK.

(Read before the Surgical and Gynæcological Soc. of the American Inst. of Homœopathy.)

THE subject of the appendix in surgery would appear to be pretty well thrashed out by this time, and yet there may be others like myself who have been slow to accept as true much that has been said about it. I confess that I was slow in comprehending the importance of appendicular disease as a factor in causing ill-health, and I was inclined to look askance at the enthusiasts on the subject. It was not until my eyes were opened by a constant repetition of cases and the good results obtained by removing the offending organ that I became convinced that a diseased appendix is a bad thing to leave in the abdomen. I am not referring to the appendix in an acute state of inflammation where there is great and immediate danger to life, but where it is in a low state of inflammation or where it is tender or crippled, either as the result of old inflammatory adhesions which bind it down, or where there may be only a mild catarrhal condition of the mucosa, which may be roused to action on provocation and become volcanic in its eruption.

There are several important pathological conditions now attracting the attention of the surgical mind, and all are dangerous and important as ill-health producers. At present it is impossible to state whether diseased pancreas, a diseased stomach, duodenum, gall-bladder and ducts, a damaged appendix or a movable kidney should take precedence in the procession, and I do not know that there is any necessity for making a comparison, because each one seems capable of exciting its own particular kind of trouble, and often they form combinations which puzzle the surgeon in making a diagnosis. Added to the above-named conditions are the various diseases and displacements of the pelvic organs, which may form combinations

with all or any of the above, and still further complicate the case.

Let me state a few of the combinations which I have found to exist in the same person at the same time :

Appendicitis and ovarian disease.

Appendicitis with tubal and ovarian disease, unilateral or bilateral nephroptosis.

Appendicitis with unilateral or bilateral nephroptosis.

Appendicitis, retroversion of the uterus, bilateral nephroptosis, cystocele, rectocele, endometritis.

Appendicitis with retroversion of the uterus, lacerations of the cervix and perineum.

Appendicitis with retroversion of the uterus, nephroptosis, unilateral or bilateral, with or without endometritis.

Retroversion of the uterus and double salpingitis.

Retroversion of the uterus with unilateral or bilateral nephroptosis.

Retroversion of the uterus, ovaritis, nephroptosis.

Nephroptosis, cholecystitis.

These combinations may arise as a result of the same general cause, or they may occur as a coincidence, but the result is that all, and not any special one, may require treatment. These and many other combinations I have found over and over again, and I have operated on all at one time, or, in case where it seemed dangerous to attempt so much at one sitting, I have done it in two operations. I cite these combinations to show that we should never have preconceived ideas as to what we are going to find. On so many occasions I have thought from the history given by the patient that one thing was the matter, and on careful examination, or during the operation, found that it was quite something else.

Mayo Robson sneers at the idea of a surgeon being obliged to make an exploratory incision because he is unable to make a definite diagnosis. On the other hand, Dr. William J. Mayo, in his splendid surgical oration ("Association of Surgical Lesions in the Upper Abdomen," by William J. Mayo, A.M., M.D., *Med. Rec.*, June 11, 1904) before the American Medical Association, makes these significant remarks from the fulness of a wide experience :

"If we clearly understand the possibilities of error (italics ours) we

are better prepared to meet complications or execute a change of front and operate on one organ when another procedure was planned. In the majority of cases a pathologic diagnosis is possible, and one can say with certainty 'this is gall-stone disease,' or, 'this is ulcer of the stomach,' but in a considerable minority a surgical diagnosis is the best that can be made; that is, we can say, in this locality is a diseased process which requires operative treatment, the exact nature of which must be determined by incision. The patient does not come to us for the purpose of having a certain operation performed, but seeks relief from suffering and disability."

It was only recently when I was called to see a case which had been diagnosed by two doctors as appendicitis where there was absolutely no objective sign of the disease. Palpation and percussion over the region of the appendix failed to elicit the slightest symptom of appendicitis, but, on a more thorough examination with the patient in an upright position, I found that the right kidney came well down toward the pelvis and caused great pain in the abdomen and dragging pain down the right side, especially aggravated by walking or riding. In another very marked case, where an old lady had been urged by a prominent surgeon to have an operation for appendicitis, she refused, and I was called one hundred and fifty miles to see her and found that she had gone through Ditel's crisis from a movable kidney, while the appendix was perfectly free from any sign of inflammation. On the other hand, a few weeks ago I was asked by a prominent physician, an excellent diagnostician, to operate on a case of obscure pelvic trouble. This patient had been under the care of another physician, also skilful and careful, who had been treating the patient for over a year, for what was apparently ovarian disease. The two physicians had examined her together under an anæsthetic, and could only make out what appeared to be a thickening in the left broad ligament. Two days previous to the operation I also examined her, and could find nothing except what *seemed* to be a vague sort of thickening at the left side of the uterus. All pain was referred to the left side. I made an exploratory operation; the uterus, ovaries and tubes were perfectly normal, but in order to eliminate all possible cause of trouble I examined the appendix, and found it bound down to the surrounding structures and sharply

flexed upon itself. In order to get it out I was obliged to cut it away from the cæcum and attend to the stump before I could release the distal portion. The patient made a rapid and satisfactory recovery. It may be that cholecystitis and appendicitis are sometimes exceedingly difficult to diagnose between. The location of the pain may be very much the same. However, there is one comfort. If it should be found on opening the abdomen that an error in diagnosis had been made, and an inflamed appendix had been mistaken for cholecystitis, or *vice versa*, it can easily be rectified operatively by enlarging the original incision somewhat and removing the real offender.

Mayo says (*Med. Rec.*, June 11, 1904): "In speaking of duodenal perforation the liquids gravitate at once to the appendical region and simulate perforated appendix."

I do not think that anyone questions the advisability of operating in the early hours of acute appendicitis, or if it has progressed beyond the period of early operation that they question the correctness of operating in the interval between attacks, so I think we can safely let that phase of the subject rest on its merits. It is in the case of what I may call "the crippled appendix" and the combinations of lesions in other organs that I am calling your attention. By a crippled appendix I mean one which may have at some time been acutely inflamed, but where the inflammatory process has nearly if not entirely subsided, leaving the organ in a damaged condition. In the limited space which is allowed me I cannot go into the details and differential diagnosis of the various conditions to which I have called attention. These have already been presented to this society in former years by eminent members of this association. The question may be asked: "What am I trying to get at? What is my point?"

I will answer: First, we recognize in the crippled appendix a source of ill-health and possible danger to life, and that it is likely to be associated with other complicating conditions. Second, I desire to call attention to the fact that pain in the right side and low down in the abdomen need not necessarily mean that it is caused by a diseased appendix, but that there are other conditions which may cause pain in that region, as ovaritis, cholecystitis, movable kidney, or impending hernia. Or the pains may be not confined to the right side when these

organs are affected, but the pain may be transferred entirely to the left side. In other words, my plea is for an open mind and a broader view on the part of the doctor when he is called to a case of abdominal or pelvic pain, which will lead him to make a more careful and skilful examination of his patient.

A CONTRIBUTION TO THE TREATMENT OF ULCER OF THE STOMACH.—Dr. Max Wagner reports the results which Prof. Lenhartz, of Hamburg, had obtained, for he has widely deviated from the orthodox method of treating ulcer of the stomach. He bases his conclusions on the results which he has obtained during the past seven years. As is well known, with this disease there is an excess of hydrochloric acid in the stomach which hinders healing of the ulcer. Lenhartz, therefore, suggests giving albuminous food, for this combines with the acid. These patients are often in a wretched condition from hæmatemesis, and a milk diet of one to one and a half litre per diem only undernourishes them. Another objection is where the heart's action is poor in chlorosis the augmented amount of fluid only serves to overload this organ, dilate the stomach, and retard healing of the ulcer. He treats such cases by having them rest four weeks in bed, putting an ice-bag on the abdomen; the same day that the patient has vomited blood he gives from 200 to 300 cems. of well-cooled milk by the teaspoonful, and one to three well-whipped eggs. Each day 100 cems. of milk and one egg are added, so that after a week the patient is taking about 800 cems. of milk and six to eight eggs. Here one may hold for a few days. Never give more than one litre of milk a day. On the sixth to the seventh day he begins to feed raw, well-scraped beef; the first day thirty-five gms. stirred up with eggs, slowly increasing the amount of beef. After two weeks he administers boiled porridge and biscuits, and after three to four weeks one may allow quite a mixed diet. During the first ten days he often prescribes two gms. of the subnitrate of bismuth, twice to thrice daily. In chlorosis, Blaud's pills and arsenic are given after eight to ten days. He has never been obliged to employ morphine or any anodynes.

The writer has employed this method in 60 cases during seven years, after hæmatemesis; only 1 of these died, and that late in the treatment, and only 4 had a recurrence of hæmorrhage after beginning treatment. As a comparison in 100 patients treated at the same hospital by Leube's methods, 20 had a recurrence of bleeding from the stomach. As one runs through the histories of the cases one observes that the average duration of treatment was short, for 52 of those under treatment were discharged in the course of the first two months. The pains from the ulcer disappeared during the course of the first six to eight days. Another favorable feature: the majority of the patients increased in weight during treatment.—*Muenchener Medicinische Wochenschrift*, Nos. 1 and 2, 1904.

EDITORIAL.

BROKEN LOOSE!

FOR three long years and over he has been good,—very good, indeed. We really do not know whether to praise him for his superlative goodness, or wonder how it was that he remained good so long. By “He” we mean George M. Gould, M.D., ex-editor of the *Medical News*, ex-editor of the defunct *Philadelphia Medical Journal*, and present editor of *American Medicine*. Three years ago he founded the latter journal, and, by reason of the enlightened and liberal policy he then assumed, secured for it a large following from leading physicians of both schools of medicine. It was really wonderful to observe the number of homœopaths enrolled as founders, five-year subscribers, etc. Wonderful, in view of Dr. Gould’s past record as a consistent abuser of our school. His promises of impartiality and liberality were well kept, for he admitted to the pages of his journal many excellent papers written by homœopaths. In fact, no old school journal the world over published as many.

But the pace was too rapid for him. He could be good no longer. On Saturday, September 10, 1904, A.D., he broke loose, singing one of his old songs, “What discoveries have been made by homœopaths?” An innocent little note on page 610 of our August issue was what irritated him. We refer to the item entitled the “Discovery of Radium.” Dr. Curie, it so happens, is not the only eminent scientist who can boast of a good father in the shape of a homœopathic physician. Dr. Dunham, a New York pathologist, and Dr. Piersol, Professor of Anatomy in the University of Pennsylvania, are sons of homœopathic physicians. What credit can homœopathy take for that? Quite a little, we answer, for certain it is that none of these gentlemen had their brains damaged by the exorbitant

doses of soothing syrups and their ilk, so commonly in use among the old school physicians of thirty-five to fifty years ago. It is a significant fact that, in a number of the instances where the sons of homœopathic physicians have become identified with the old school, they become famous, not as practitioners of medicine, but as workers in branches not identified with "pathy," as anatomy, pathology, biology, etc. The facts in Dr. Curie's case are of more than passing interest. As stated, his father is a homœopathic physician of eminence. Dr. Curie himself is not a practitioner of medicine. The French government offered him a decoration because of his scientific discoveries, but he declined it, because of the slights to which his father had been subjected by the authorities.

But to the question! What discoveries have been made by homœopaths? Answers obtainable from old school sources only are admissible. No others are genuine. So we refer our querist to the pages of Bartholow, Ringer, Phillips, Hare and Brunton.

We refer him to six volumes of *American Medicine*, containing many excellent papers by homœopathic physicians. He may say these amount to nothing, and, consequently, do not count. Well, if that is the kind of stuff which goes into *American Medicine*, we have nothing to say.

We refer him to Dyce Duckworth, who tells us that Todd, George Balfour, and Hughes Bennett, copying after Skoda, who in turn got his inspiration from Fleischmann, a homœopathic physician of Vienna, reduced the mortality of pneumonic fever from one in three to one in twenty-six. Just think of the wholesale murder of pneumonia patients that had been going on through centuries, exposed by a homœopathic physician of Vienna. Ye statisticians, arouse! Estimate the number of cases of croupous pneumonia in, say, fifty years, and by the simple rule of three determine the actual saving of life, if the precepts of Hahnemann and Fleischmann are followed. Even the discoverer of McBurney's point, great benefactor to the human race though he is, cannot boast of having done as much good.

There is the Dudgeon Sphygmograph, the only one commanding any serious attention by clinicians, the invention, unaided, of Dr. R. E. Dudgeon, a celebrated homœopathist of London.

Our surgeons have made valuable contributions to the advancement of the science, but such advancements have only been acknowledged when the homœopathist has published them in old school journals. Hence it is not uncommon for many of our men to do this in order "to be quoted."

Finally, we ask who originated the dictum, "Treat the patient and not his disease?"

"Who sounded the death-knell of poly-pharmacy?"

"Who made the effects of drugs upon the healthy the basis for their use in disease?"

And yet these are all important principles of the allopathic school of to-day.

We sincerely trust that Dr. Gould's lapse from virtue is apparent, and not real. It may be that some little youthful strip-ling occupied the editorial chair during the vacation month of August, and thus gave vent to his feelings. Or it may have been mosquitoes, or it may have been—Dr. Gould himself.

SURGERY AS A MEASURE OF MORAL REFORM.

THE existence of a physical basis of moral depravity, dependent in a great part upon heredity, and of environments of varying degrees of unfavorableness, modifying the physical and therefore the mental and moral growth, renders the infliction of an absolutely just punishment an impossibility. We have long thought, therefore, that the idea of punishment should be entirely eliminated when society undertakes to protect its members from the so-called criminal. It has only such rights as have been delegated to it by the individuals composing it, and has been formed solely for the purpose of preserving and advancing their interests and thereby its own existence. Its treatment of the lawless dare have no element of vindictiveness in it, otherwise it would be encouraging a course of conduct which its existence is intended to repress. Its first duty is to render him who persists in antagonizing its formulated regulations harmless.

As regards acts already committed, society in its dealings with the criminal should represent, in as pure and unmistakable

ble a manner as possible, the inevitable consequences of wrongdoing, as an instrument of an inexorable fate which of necessity brings upon every act its consequences—the soul that sinneth, it shall die. As far as possible, therefore, the punishment should be made to fit the crime; robbery should be followed by enforced restitution, violence by corporal punishment; and murder by death—an eye for an eye, a tooth for a tooth.

Where the nature of the crime or the enlightened humanity of the age does not permit of such a ready adaptation of the punishment to the crime, the restriction of personal liberty, imprisonment, has come to be regarded as a substitute, “something just as good.” With this latter should always be joined enforced labor, as society’s protest against idleness, the mother of crime.

In its conflict with existent crime society is at a disadvantage, and to the question whether the world is growing better we fear a negative answer must be given. It is true that much of the apparent increase of crime is due to the multiplied facilities for making it known. We can now read at our breakfast table the crimes of the world during the preceding twenty-four hours. Through the telegraph and the railroads the world has become smaller, and its doings present themselves to us out of proportion. But the same holds good of the apparent betterments; they are magnified in the same way and we can at most say, as in the case of a very sick patient, society is holding its own.

Human nature is the same as it ever was, with the same potentialities for good and for evil, and our only hope of actual and permanent improvement lies in discovering some way to increase the one and decrease the other, before they have the opportunity of developing into actualities. Prophylaxis must therefore be the watchword in all sociological efforts.

After the criminal has been caught it is a comparatively easy matter to render him harmless by incarcerating him, and throwing the burden of his worse than useless support upon the honest members of the community. This is hardly just to the latter; it is rather a heavy premium for their insurance against crime, while, for the criminal, the most conscientiously determined sentence may be most unjust when viewed from

the standpoint of responsibility, as determined by heredity and environment.

Much has been done, and is being done, to alter the environment of those liable to fall into the criminal class, and no doubt success has crowned many of these efforts. As yet, but little organized attempt has been made to influence the other factor, heredity. It is still looked upon, in many quarters, as a "forbidden subject," which it is not "decent" to discuss, but there are evidences of a reaction against this hyper-prudishness. Society, or the State, through its representatives, has in several localities entered its protest against, and has forbidden, the marriage of persons physically unfit. (This is a step in the right direction, although in forbidding the marriage of such persons, and not merely placing a prohibitive penalty upon their begetting children, we think the State has overstepped the bounds of its delegated powers.) What is to prevent the same course of reasoning which justifies such legislation from going a step further, and leading to the forbidding the marriage of the morally unfit? Such legislation could only, of course, be applied to pronounced criminals, those whose defective morality had been demonstrated by overt acts.

We see at once, however, that such legislation could not hope to accomplish its purpose, in limiting the production of morally unfit offsprings. The number of children born of criminal parents would not be lessened, they would only be deprived of the present scant protection of legitimacy; hence such legislation could not but have an evil influence upon the morality of the community. Why not then go a step further, supported by the same reasoning, and legally, by a surgical operation, render the confirmed criminal physically unable, as he is morally unfit, to procreate? Were phrenology an exact science, the plan proposed by Midshipman Easy's father, by suction or by pressure to suppress or develop the physical basis of character in the brains of the young, would not be chimerical. To cause to atrophy those portions of the brain presiding over criminal activities, at the same time that the seat of more desirable qualities was stimulated into preponderating growth, would be an ideal way of correcting the faults of criminal heredity, especially if it could be done by exact mechanical means.

At present it can only be striven after by education, and that too frequently at the hands of those who know actually nothing of the end to be accomplished, or of the psychological means of attaining it. To cram the memory with imperfectly understood facts, the heart with ambition to obtain a "passage" average, while the reason is allowed to take care of itself, seems to be the sum of most of the general education of the present day, the moral wants being apparently satisfied by a cultivated ability to escape punishment.

Until "brain localization" has become sufficiently exact to enable the surgeon to trephine for the cure of immorality, let us be satisfied with castration. This operation has lately been advocated as a fitting and salutary punishment for a certain kind of crime which has become all too prevalent in the immediate past. We are most earnestly in favor of its introduction. The punishment would most beautifully fit the crime, and it would prove more deterrent even than the fear of the horrible death by lynching, to say nothing of legal execution, or prolonged incarceration. All physicians know that a loss of virility is more dreaded by most men than death itself, and that the consciousness of a loss of the power to conceive has much to do with the mental symptoms which mark the climacteric years, even in those who have never had an opportunity to verify its original possession.

We feel, therefore, that castration performed, at first, for criminal assault, but later to be carried out in the case of those with demonstrated incurable criminal tendencies, would do more to reform the world than all the prisons in Christendom, and in a shorter time. The earlier the stigmata of degeneracy are recognized, and the sooner this prophylactic measure is applied, the smaller will be the number of criminals born, and the fewer the crimes to be punished.

With environments improved, and the extension of hereditary taint limited, we may hope that the world may grow better, and the good in it do more than simply "hold its own."

DIOSCOREA VILLOSA ABORTS FELONS.—If, when the pain is sharp and agonizing, you prescribe dioscorea, it will almost always stop the further progress of the disease.—C. A. Schultze, M.D., in *N. A. Jour.*

GLEANINGS.

THE RELATIONS OF TONSILLITIS WITH OTHER DISEASES.—Dr. Hamerschmidt has made a study of the interrelations of tonsillitis and other diseased states. The lymphatic ring of Waldeyer, an excellent means of defense against infections, is not always as active as could be desired and it becomes the door of entrance for pathogenic germs. The tonsils are by their position exposed to all sorts of dangers; their epithelium is but little resistant and their crypts are full of micro-organisms of every kind. Loeffler has demonstrated that experimental chilling causes a slowing of the circulation of blood and lymph, conditions which favor the development of germs. There are mild forms of tonsillitis which run their course with high fever and violent nervous symptoms, while other and deeper ones, phlegmonous forms, pursue an apyretic course; this depends on whether the lymphatics are open or closed. One sees similar conditions in the skin where an extensive abscess may not cause febrile reaction, while a boil will rapidly produce in another septicaemia, for the virulent material finds the lymphatic channels open. If one review the literature of the last few years one will note how many diseases began with a tonsillitis. If one exclude diphtheria which is merely a tonsillitis with penetration of Loeffler's bacillus into the circulation, one may find as diseases beginning with tonsillitis the following:

1. Cases of nephritis which cannot be explained otherwise than as migration of the germs of a tonsillitis and their toxins into the kidneys. None of these observed by the writer died; one was cured, two improved.
2. Cases of typhlitis. (Cases of appendicitis have been described.)
3. Diseases of the respiratory tract; catarrhs of the larynx, trachea and bronchi. The writer reports a case of croupal pneumonia beginning with tonsillitis.
4. Catarrh of the nose and adjacent sinuses, catarrh of the Eustachian tube. Purulent, serous and dry catarrhs of otitis are amongst the frequent complications of tonsillitis. From the middle ear to the middle cerebral fossa is but a short step, and the writer cites the case of a soldier who died of purulent meningitis following tonsillitis, where Fränkel's coccus was found in the blood, the spinal fluid, the middle ear and the pus of the meninges, whither it had traveled up the Eustachian tube or through the lymphatics.
5. To Menzer is due the credit of having noted the connection, between articular rheumatism and tonsillitis (Trousseau, in his *Hôtel-Dieu Lectures*, spoke of it years ago). Both his experiments, and those of Meyer, demonstrated that in the greater number of cases the virus of acute polyarthritis enters the system through Waldeyer's lymphatic ring and especially through the tonsils. If not all cases of tonsillitis are followed by rheumatism that is due to the protecting influence of Waldeyer's lymphatic ring. Menzer and Meyer asserted that the streptococcus was the sole cause of acute articular rheumatism, but others doubt this for other pyogenic germs have been found

associated with it. However, the term rheumatic sore throat, as applied by Quinke, is a very happy one. (Trousseau called it angine rheumatismale long before Quinke's time.)

6. Purpura rheumatica, purpura hæmorrhagica, erythema nodosum and papulosum may be preceded by a tonsillitis.

7. More frequent complications of tonsillitis are pleuritis.

8. Septic processes may follow a tonsillitis; serious infective processes in the immediate neighborhood as Ludwig's angina, abscesses of the vertebral column and the temporo-maxillary articulation, metastases in the spleen, general furunculosis, thromboses of the arteries, pyæmic and septicæmic processes.

9. Neuritis of the area supplied by the superior orbital nerve, paralysis of the palate, slow or irregular pulse.

10. At times a connection has been sought between parotiditis and tonsillar infection. In twenty-four cases out of twenty-five of this disease he has noted a sore throat which is different from the pain caused by mastication. As there are cases of parotiditis complicated by orchitis so there are cases of tonsillitis associated with testicular involvement.

11. It is not improbable that the tonsils may be the door of entrance of scarlatinal infection. This explains why this disease is more frequent in childhood where the tonsils are more developed, the lymph-spaces larger and the epithelial covering thinner.—*La Nuova Rivista Terapeutica*, No. 2, 1904.

Frank H. Pritchard, M.D.

SALICYLIC ACID IN CHOLELITHIASIS, CHOLANGITIS, ETC.—Dr. Bauermeister advises in these affections the systematic administration of small doses of salicylic acid, together with the acid oleate of soda, for he has employed these remedies in such cases where other remedies have failed. In acute gall-stone colic he injects morphine and atropine hypodermically, for these drugs control the spasm of the bile-passages.—*Therapeutische Monatshefte*, No. 5, 1904.

BARLOW'S DISEASE.—Dr. Ausset, of Lille, France, asserts that not the method of preparing milk, but milk itself, is the cause of Barlow's disease, which he holds not to be a rhachitis, but a hæmorrhagic complication of rickets of toxic and infectious nature and of gastro-intestinal origin. As to treatment he recommends not only antiscorbutic measures as meat, lemon- and orange-juice, but also calomel, copious colonic flushings, pure milk and good air.

Hæmaturia alone may be the only symptom of Barlow's disease, as Dr. E. Neter has observed in an infant of 8 months, which for seven months had been nourished wholly on Lœflund's malt-soup which had not been sterilized. The decidedly rhachetic patient, who otherwise was well, passed urine darkly colored with blood. Both macroscopically and microscopically blood was detected in the urine. Crude milk was given and the child recovered within a week.—*Berliner Klinische Wochenschrift*, No. 25, 1904.

Frank H. Pritchard, M.D.

ACUTE LYMPHOID LEUKÆMIA IN A BOY OF TWELVE YEARS.—Dr. K. Reitter, of Vienna, recently observed such a case in a boy of 12 years. Four weeks previously he had noticed bluish-red spots appear on his body, to be

followed in two weeks by fever. This was soon succeeded by bleeding from the gums and bloody urine; there was an enlarged spleen, all the palpable lymph-glands were enlarged, tender and painful, while an increasing pallor was noticeable. An examination of the blood confirmed the diagnosis.—*Wiener Klinische Rundschau*, No. 16, 1904.

Frank H. Pritchard, M.D.

TREATMENT OF REDUCIBLE HERNIAS BY INJECTIONS OF ALCOHOL.—Dr. Steffen, between the years 1886 to 1896, has treated 1182 cases of reducible hernia by this method. Instead of Schwalbe's original solution of 20–70 per cent. of alcohol he employs the following solution: absolute alcohol, distilled water, āā 50 gms., phosphoric acid diluted, formalin, āā gtts. x.

He injects the contents of a syringe containing 3 gms. over the external ring after the rupture has been reduced. This is done at first once a week; later less frequently. In sensitive patients one may use a preliminary injection of cocoaine, 0.01, and render introduction of the alcoholic solution almost painless. He sums up his experiences as follows: Treatment by this method yields about 75 per cent. of immediate successful results, so that the patient is able to be about, do all kinds of work without wearing a truss and without his hernia being detectable. Such patients must be under observation at least one year, where the rupture is recent and small. The greater the hernia, the wider the ring, the longer time is necessary; two to three years and longer. Hence a greater or lesser number of injections are required. The patient may be up and about, and the injections are to be made at longer and longer intervals. No particular care on the part of the patient is necessary. Very patulous rings require daily injections, at first, with rest in bed. In general, the method is indicated in all reducible hernias, which can be retained by means of a truss. Hernias retained with difficulty may be caused to improve to such a degree that the patient is able to work, by wearing a truss. The good results at the beginning suffer a recurrence of 12.5 per cent. ($\frac{1}{8}$) completely or incompletely. These recurring cases may be again injected. The method is applicable at any age, and as it requires neither anaesthesia nor a long rest in bed, in many cases, in old people especially, it is to be preferred to a radical operation. Frequently repeated injections are not to be recommended, for the acute inflammatory process should be conducted over to a chronic stage and kept there for some time. Toxic by-effects are only rarely noticed as urticaria and alcohol-intoxication in one patient, a vegetarian and a teetotaler. No nephritis has been observed to follow. By careful consideration of the anatomical relations unfortunate complications are very rare. However, it cannot be said that the method is wholly devoid of danger.—*Sammlung Klinischer Vortraege*, No. 369.

Frank H. Pritchard, M.D.

FAVORABLE RESULTS FROM DIPHTHERIA ANTITOXIN IF USED DURING THE FIRST DAY.—Dr. H. C. MacQuaide has employed antitoxin in 100 cases of diphtheria during the past four years. He lays special stress on the value of employing it very early, and, in fact, on the first day when, if 2000 units be injected, it nearly always aborts the disease. He refers to the results of another author, Jelisch, who has analyzed 137,000 cases of diphtheria, where the serum had been employed the first day there was a mortality of only 5 per cent.—*Dublin Journal of Medicine*, No. 3, 1904.

Frank H. Pritchard, M.D.

TOXIC NEPHRITIS WITH APPENDICITIS.—Prof. Dieulafoy, of Paris, calls attention to this formidable complication of appendicitis. Toxic nephritis during appendicitis, clinically, is seen as albuminuria; a serious case of appendicitis rarely is unaccompanied by albuminuria. It may appear from the first to the third day and is generally moderate. The symptoms which otherwise announce an acute nephritis are not met with in this form. There is no facial œdema, no pleuritis, no pulmonary œdema; only an examination of the urine reveals its presence. In the milder forms no casts are found and but little albumin. Such mild albuminuria may be or not the forerunner of serious symptoms. If more albumin be present one may find casts already early in the course of the appendicitis; then it is always a grave matter. Often one may observe the albumin to vanish quickly from the urine after an appendix has been removed by operation.

The prognosis, therefore, cannot be said to be gloomy if albuminuria be found, but it will always be a sign of a poisoning, which may spread to other organs and give rise to a toxic gastritis or a hepatitis, etc.; often one will note an icteric complexion in these patients which is a sign of a toxic hepatitis. In every case one should carefully watch these symptoms; they need not always be serious, but they indicate an advanced systemic poisoning, and may certainly be taken into consideration in deciding whether one should operate or not. Dieulafoy is an advocate of early operation. Pathologico-anatomical examination of the kidneys revealed more or less intense epithelial changes.—*Hospitalstidende*, No. 9, 1904.

Frank H. Pritchard, M.D.

SOME OBSERVATIONS ON THE DIAGNOSIS OF TYPHOID FEVER.—Prof. Fr. Mueller, who was chief physician of the Basle Hospital, analyzes his experiences in the treatment of typhoid in that institution. One of the chief dangers of the disease is in the intensity of the systemic poisoning, which causes a fall in blood-pressure and a rapid, soft and small pulse. It has been assumed, like in diphtheria and pneumonia, that this is an especially dangerous sign; how far, he will not say; whether it of itself is dangerous or merely a sign of a serious systemic condition. At all events, digitalis has been of no service to him, but caffeine, in doses of one to two gms. per diem, hypodermically, has given him excellent therapeutic results. An ice-bag to the abdomen will cause the blood-pressure to rise. Calomel, as an intestinal disinfectant, is illusory, for most cases are seen too late. The bath-treatment was not as rigorously carried out as of yore, but was limited to cold-sponging and sprinkling, after which the patient would be put into a warm bed. Formerly only liquid foods were allowed, for fear of perforation and hæmorrhage, but the writer allows, to help nutrition besides, one to one and a half pints of milk, scraped or finely hacked beef, chicken or veal, potatoe purée, porridge, wheat bread, biscuits, spinach or apple sauce, and compared with the results of others, his are equally as good; hæmorrhages and relapses are no more frequent, and, not least of all, the patients are not so reduced so as to fall a prey to the frequent sequelæ of typhoid. Typhoid patients assimilate their food well. He advises a careful disinfection and cleaning of the buccal cavity to diminish the dangers of aspiration-pneumonia. To prevent pneumonia and bed-sores, have the patient shift his position to the back or sides at times. In bronchitis he recommends inhalations of turpentine. Isolation is unnecessary; let the nurses be careful.—*Hospitalstidende*, No. 11, 1904.

Frank H. Pritchard, M.D.

THE DANGERS OF RADIO-THERAPY IN CANCER.—Dr. Bissérié, of Paris, at a recent meeting of the Société de Dermatologie et Syphiligraphie, in referring to a communication by Dr. Oudin—*La Semaine Médicale*, p. 78, 1904—on the dangers of too prolonged and too frequently repeated radio-therapeutic treatments of cancer, in which Dr. Oudin had asserted that they caused a sudden generalization of the disease, thought that he might explain these untoward effects otherwise. The three cases were of cancers which had existed for a long time. Now, numerous instances are known where such growths have pursued a slow course, and suddenly, and without apparent reason, have quickly taken on rapid growth. These cases are, however, exceptional, and surely the excellent results obtained in skin cancers by the X-rays justify one in using them. Dr. Balzer, in the discussion, asserted that in some cases of apparent cures of epitheliomas by caustic pastes he has made an examination of the tissues of the scar during life, and found epithelial cords persisting in the cicatricial tissues. Dr. J. Darier said that in a case of cancer of the face which had been cured by Czerny's method, he did an auto-plastic operation in which he excised an apparently suspicious piece of skin. Microscopically, epithelial noduli were found. That was five and a half years after the operation, and no recurrence had taken place. Dr. Brocq thought that we could not pretend to obtain radical cures with X-rays. But this method is really the best means of curing certain cases which experience will teach us to determine.—*La Semaine Médicale*, No. 11, 1904.

Frank H. Pritchard, M.D.

ONE CAUSE OF ALOPECIA AREATA.—Dr. Jacquet also presented a patient who for two years had been affected with alopecia areata of the left half of his mustache, with facial hyperæsthesia of the same side which the reporter thought to be due to a dental fistula which had remained after extraction of a tooth where the tip of one root had been broken off and had remained in the gum. This fragment once extracted the hair soon reappeared rapidly and the hyperæsthesia vanished.

Dr. Darier in the discussion said that since Dr. Jacquet had called our attention to this one possible cause of alopecia he had examined the teeth of patients with alopecia, and to judge from his experience these relations have been very common. On the other hand where there were no dental lesions there have been erythematous and painful phenomena. Finally, where both causes have been lacking he has laid the falling out of the hair to general nutritional disturbances, particularly of growth. Dr. Brocq thought his experience to coincide with that of Dr. Darier. The dental lesions most frequently connected with alopecia were those of the wisdom teeth.—Société de Dermatologie et Syphiligraphie. Dr. Souquès at a recent meeting of the Société Médicale des Hôpitaux related the case of a woman, affected with patches of alopecia behind both ears. In absence of all other appreciable causes her disease seemed to be due to frequent attacks of classic migraine, with painful irradiation into the occiput, or possibly they were due to former dental neuralgias. Dr. Verdalle, of Bordeaux, communicated several cases of alopecia associated either with lichen planus or vitiligo, or to both these dermatoses in one patient. He considers these morbid combinations of disease as speaking in favor of a tropho-neurotic origin of alopecia.—*La Semaine Médicale*, No. 19, 1904.

Frank H. Pritchard, M.D.

AN EARLY SIGN OF PREGNANCY.—Johnson, Washington, reports an early sign of pregnancy which he observed in ten cases subsequently proven to have been pregnant at the time. The sign may be demonstrated as early as the fourth week or possibly earlier, and consists in an intermittent softening and hardening of the vaginal portion of the cervix, with in many cases a change of color from a pale violet to the normal pink hue, or the reverse. These changes in consistence and color are more or less rhythmic. The alternate softening and hardening is easily detected by touch, while the changes in color may be seen through a speculum. These signs are in all probability early manifestations of what is subsequently recognized as the intermittent contractions of the pregnant uterus, and are probably due to some modifications in the uterine circulation incident to the nourishment and growth of the impregnated ovum through physiologic intermittent congestion of the generative system. He has never observed these signs in any other normal or diseased condition. His attention was at first attracted to the sign by one day observing the cervix hard and the next soft. He examines a patient and, after five or ten minutes, if in doubt, has her come back on succeeding days. The color changes in from three to five minutes. In one case he diagnosed pregnancy as early as fifteen days after menstruation.—*Amer. Jr. Obs.*, 1904, 694.

Theodore J. Gramm, M.D.

THE TREATMENT OF TUBERCULAR PERITONITIS.—Freund reports 15 cases, 4 of which were of the serous or ascitic form, 7 of the dry or adhesive and 4 of the ulcerative variety. All were operated and cured with the exception of 2 cases of the ulcerative variety. From an experience in 56 cases of peritonitis from various causes, he believes that every form of peritonitis may be successfully treated by abdominal section. In this respect there is no difference between the inflammatory, perforative forms and those which arise in the course of tumors, even malignant. The benefit is determined by relieving the abdominal cavity of the exudation with or without specific disease excitants, and by a process of connective tissue production which encapsules or destroys the former disease product or the foreign bodies. In tubercular peritonitis the mild and moderately severe cases of the serous variety may be relieved by conservative treatment, and this should first be applied; more severe cases in which improvement delays, but especially those of the adhesive and ulcerative forms, should be subjected to surgical treatment.—*Centralbl. f. Gyn.*, 1904, 786.

Theodore J. Gramm, M.D.

AN EASY METHOD OF PERCENTAGE INFANT FEEDING.—(Brown, Elmira.) The secret of successful feeding is to give a food which the child can digest, rather than to be governed by its age or weight. The mixture should be diluted to a point so that the child can digest it, and then increase the strength. This method has been the corner stone of many enviable reputations. When difficulty exists in the digestion of milk it is usually with one, or chiefly with one of its constituents, and this one should be most changed. The upper fourth of cow's milk contains approximately 10 per cent. fat, 4 per cent. proteids, and 4 per cent. sugar, a ratio similar to that of breast milk. With 10 per cent. cream, it is evident that one ounce of cream in a twenty-ounce mixture would give a percentage of one-twentieth of 10 per cent. or one-half of 1 per cent. In the same way the percentage of albuminoids would be one-twentieth

of 4 per cent. or one-fifth of 1 per cent., and the percentage of sugar the same. An even teaspoonful of milk-sugar added to a twenty-ounce mixture raises the percentage of sugar 2 per cent.; the same amount of cane sugar raises it to 3 per cent. The rule is that: each ounce of 10 per cent. cream in a 20 per cent. mixture represents .5 per cent. fat, .2 per cent. albuminoids, and .2 per cent. sugar, and each teaspoonful of milk-sugar represents 2 per cent., or of cane sugar 3 per cent. If we wish to increase the albumin without an increase of fat it is necessary to add skimmed milk or whole milk or top milk containing less than 10 per cent. of fat. By applying this principle to upper fourth as above, to whole milk or to upper half (9 per cent. or 8 per cent. fat), we can obtain almost any proportions.—*Amer. Jr. Obs.*, 1904, 720. Abs. from *Pædiatrics*, Nov., 1903.

Theodore J. Gramm, M.D.

THE GENERAL PROGNOSIS OF CERTAIN SYSTEMIC DISEASES AS EXPRESSED BY THE OCULAR SIGNS AND SYMPTOMS.—De Micas reviews the prognostic significance of the ocular lesions in general diseases. He says that the appearance of corneal ulcer, keratomalacia, or amaurosis, in the declining stages of the general disease, are always of grave prognostic significance. In a case of malignant measles, acute hemeralopia and conjunctival xerosis were early complications. Corneal ulceration in smallpox, he states, has no general significance, but keratomalacia and exophthalmus are of grave importance. Sudden blindness in whooping-cough is a grave symptom, as are all ocular accidents which accompany typhoid fever. In cholera, mydriasis, myosis, absence of iris reaction to light, and conjunctival ecchymoses are all of fatal import. The ocular complications of syphilis indicate severe general infection. In diabetes, retinitis and cataract are unfavorable conditions. The importance of retinitis in the diagnosis and prognosis of Bright's disease, he says, is well known. In the old, rapid corneal destruction, without apparent causes, indicate an early approach of death. Dr. De Micas, Toulouse.—*Annals of Ophthalm.*

William Spencer, M.D.

"GRAY OIL" IN SUBPALPEBRAL MASSAGE IN PLACE OF SUBCONJUNCTIVAL INJECTIONS, AND IN OCULAR THERAPEUTICS.—Vacher employs an ointment made of twenty-seven parts of purified mercury, six parts of "double" mercurial ointment, forty-five parts of anhydrous lanoline, and twenty-two parts of vaseline or sweet almond oil. This mass, he says, is compact, homogeneous, and non-irritating. It is introduced into the subconjunctival *cul-de-sac* by means of a large tipped syringe.

Upon contact with conjunctiva, the oil readily softens. Massage through the closed lids is then applied. A small additional amount of the oil is then introduced and the eyelids are kept closed under a light dressing for a period of two hours. In the treatment of corneal ulcer the ulcerous area is first eurented and is then filled with the gray oil, which is rubbed into the parts with a smooth glass rod. For the various affections of the iris, the ciliary body, and the deeper parts of the eyeball, massage is to be applied from the centre of the cornea to its periphery. The mercurial massage, the author says, acts in two ways: first, mechanically; and second, by favoring the absorption of the mercury, as larger amounts are thus taken up than by the subconjunctival injections.

The author has applied this form of treatment with good results in cases

of ulcerating blepharitis, acute conjunctivitis, ophthalmia neonatorum, keratoconjunctivitis, corneal ulcer with hypopion, iritis, iridochoroiditis, and in absence of the lacrymal sac. More recently he has found it advisable in some cases to introduce a small amount of the material into the inferior *cul-de-sac* after cataract extraction. Dr. Vacher, Orleans.—*La Clinique Ophthal.*

William Spencer, M.D.

ON THE ACTION OF THE ANTITOXIC SERUMS IN THE TREATMENT OF INFECTED CORNEAL ULCERS.—Darier reports a case of infected corneal ulcer, cultures from which showed the existence of the pneumococcus. Other treatment failing, the author gave two injections of ten cubic centigrammes of antidiphtheritic serum on two succeeding days; a rapid cure followed.

He remarks on the work of Roemer, who has employed antipneumococcic serum in sixty cases of corneal ulceration with great benefit. Microscopic study, he says, usually reveals the presence of the pneumococcus in the cases, but where this germ is absent, the serum, being harmless, is given nevertheless as a prophylactic. Roemer, he informs us, uses ten cubic centigramme doses, repeating them some three or four times on an average. The method is at times combined with subconjunctival injections of salt solution, in order to aid penetration of the bacteriolytins. Dr. A. Darier, Paris.—*La Clinique Ophthal.*

William Spencer, M.D.

CLINICAL CHARACTERISTICS OF SYPHILITIC CHANCRE OF THE BULBAR CONJUNCTIVA.—The case was a woman, 30 years of age, who had been married four months and who was pregnant. Her previous history was negative. The husband stated that he had had an initial sore some two years previously, and that he had been taking specific treatment ever since. He was, however, still suffering from buccal mucous patches. The patient first noticed a redness and an itching at the inner angle of the left eye. At the first examination there was a wheat-grain-sized tumor which was capped by a yellow superficial ulcer situated on the inner lower part of the left eyeball. Later, the growth became the size of a hazelnut. It was covered by a yellow superficial ulcer which was surrounded by an injected margin, and which was accompanied by marked chemosis. To the touch the tumor was "wooden" and dense. The preauricular glands, which were large, were painless. There was a less marked degree of swelling of the submaxillary glands. The chancre healed after a duration of three months, leaving but a few bulbopalpebral adhesions. During this time, cutaneous and other external symptoms of syphilis appeared. The author states that but sixteen cases of chancre of the bulbar conjunctiva are reported, although those of chancre of the eyelid are numerous. In the diagnosis of the condition, the induration of the growth, the wooden character of the chemosis, the hard, indolent, slowly evolved adenopathy, and the spontaneous resolution are all most important distinguishing points. The character of the ulceration and the condition of the exudate are the results of the location and constant moisture. Dr. Rollet.—*Annals of Ophthal.*

William Spencer, M.D.

THE DANGER FROM MILK FROM TUBERCULOUS COWS.—Dr. G. Moussu, of Paris, in a paper recently read before the Societe de Biologie of that city, in experiments made with the milk of tuberculous cows which reacted to tuber-

culin. but which seemed to be in good health, and above all where no signs of involvement of the udder were clinically noticeable, has found this milk to be dangerous. For, from hypodermic injections into Guinea pigs of the precipitate obtained by centrifuging such milk, out of 57 specimens he obtained positive results in 7. This proportion, though relatively low, proves that the milk of cows affected with latent tuberculosis may contain bacilli in sufficient quantity to be a source of danger in certain conditions as to infect susceptible persons.—*La Semaine Medicale*, No. 17, 1904.

Frank H. Pritchard, M.D.

PRIMARY GOUTY NEPHRITIS.—Prof. Litten, of Berlin, some time ago received under his care at the hospital a woman of 45 years in uræmic coma, in which she died after twelve hours without awakening sufficiently to question her and without the clinical examination revealing anything beyond a hypertrophy of the left ventricle. At the autopsy a well-marked granular atrophy of the kidneys was found. The cortical layer was bigarre where the red and white areas alternated; besides there were brilliant radiating lines running through this portion which chemically were detected to be formed of urate of soda. Histological examination showed that around the uratic deposits there were giant-cells, seeming to originate in the epithelium of the urinary canaliculi, for the walls of these tubuli were partly lined by normal epithelium and partly by these giant-cells; in places they appeared to lie side by side. These giant-cells he holds are endowed with phagocytic properties. Besides these gouty lesions of the kidneys there was amyloid degeneration of the liver, spleen, intestine, and endocardium. There were no other gouty changes outside of the nephritis, but slight uratic deposits in the metacarpophalangeal articulations and two small tophi in the ears. Hence the condition was a primary gouty nephritis, and peculiarly enough, as he afterwards learned, she never had had an attack of gout. She had enjoyed excellent health until the attack of uræmia which carried her off, and which was quite acute. The idiopathic amyloid degeneration is also worthy of notice, for this is only the second case that he has noted; there seemed to be some connection between it and the gout.—*La Semaine Medicale*, No. 19, 1904.

Frank H. Pritchard, M.D.

ATROPINE IN INCARCERATED HERNIA.—Dr. Hagen is an enthusiastic advocate of hypodermic injection of atropine before attempting taxis in incarcerated hernias. He would proceed as follows: if moderate taxis does not reduce the rupture he would inject atropine or an extract of belladonna and after waiting an hour try taxis again. If one then fail one may inject another dose of atropine. If one then be unsuccessful one may operate.—*Deutsches Archiv. Fuer Klinische Medicin.*, Bd. 78, Hfte. 5 and 6. (I have used atropine combined with morphine in such cases and had very satisfactory results. An injection of these two drugs makes a decided difference between the feel of the hernia and greatly eases reduction. I should not try to reduce a tense hernia which did not readily yield to taxis without it. The morphine quiets the abdominal pain and the atropine dilates the ring.)

Frank H. Pritchard, M.D.

THE DANGERS OF SALICYLATE PREPARATIONS ON THE KIDNEYS.—Dr. Brugsch has tested Luethje's assertion that the salicylic acid compounds all act injuriously on the kidneys, making examination of patients in the Altona

Hospital. He concludes that up to a certain point he can confirm Luethje's claims, for single doses of 5 gms. are actually harmful to the kidneys. The kidneys of women are less resistant than those of men, for one may give men up to 5, but women only 3, gms. of salicyl. or aspirin. In case of necessity one should only administer one single dose of 5 gms., reducing the size of the dose again. If one should exhibit doses of 5 gms. several days in succession an irritation of the kidneys is sure to follow. The greater the sweating, the less liability is there of the kidneys suffering.—*Berliner Klinische Wochenschrift*, No. 19, 1904.

Frank H. Pritchard, M.D.

A FEW THERAPEUTIC HINTS IN BASEDOW'S DISEASE.—Dr. v. Holst would advise absolute rest, if possible, the greater time to be spent in the open air. One may prescribe the bromide of soda and Levico water to stimulate the appetite. He has never observed any good to follow electrical treatment, and he would warn against the use of thyroid tablets and preparations of iodine. The food should consist largely of milk and but little of meat. Profuse urination and diarrhœas should be "respected" and not stopped. An excellent means of controlling the insufficient nervous innervation of the vascular nerves are half-baths of 26° Reamur at first, gradually, in the course of fourteen days, lowering the temperature to 20°. Operative interference is only indicated in desperate cases.—*St. Petersburger Medicinische Wochenschrift*, No. 9, 1904. (In the *Muenchener Med. Wochenschrift*, No. 10, 1904, Dr. W. Kuhne-mann has an interesting article in which he asserts to have obtained excellent results in Basedow's disease with rodagen, a dried preparation of the milk of "thyroidectomized" goats, which is precipitated by alcohol from this milk. The patient gained 12 pounds in one month, the tremor disappeared wholly, her neck decreased 1½ inches in size, the sweating has decreased somewhat, the heart's action has become less rapid, and she does not suffer from palpitation of the heart. The remedy is perfectly harmless and may be given in good doses. The patient, I ought to have said before, was a young woman of 19 years who had observed the disease come on after suffering from intense home-sickness while in America. He also mentions another case where a woman, a Russian, suffered from grave hysteria and chorea complicating exophthalmic goitre, and here also rodagen, after being used for several months, caused all the signs of Basedow's to disappear.)

Frank H. Pritchard, M.D.

POISONING BY MUSTARD SEEDS.—Dr. Kolbe observed a woman who for four days, on account of pains in the stomach, had taken 5 or 6 heaping teaspoonsful of mustard seeds. She was found unconscious, with a rapid pulse, subnormal temperature, contracted pupils, and 3 to 8 respirations a minute. The treatment consisted of hypodermics of camphor, washing out of the stomach, infusion of normal salt solution and injections of atropine to overcome the spasm of the muscles. The urine contained albumin and 5-per-cent. sugar. She went through a slow convalescence.—*Deutsche Medicinische Wochenschrift*, No. 7, 1904.

Frank H. Pritchard, M.D.

ADRENALIN IN GYNÆCOLOGY AND OBSTETRICS.—Dr. Gutbrod recommends a 1:1000 solution of adrenalin in physiological salt solution as a hæmostatic in gynæcological and obstetrical work. Several times he has been able to con-

trol uterine hæmorrhage, where after repeated curetting the bleeding persisted, by introduction of a strip of gauze soaked in adrenalin solution. He also recommends it in hæmorrhages at the beginning of labor in cases of placenta prævia; one may thus secure a dilation of the cervix without hæmorrhage, when version without employing force may be done. It is worthy of remark that the endometritic hæmorrhages after employing this measure several times did not return, and the leucorrhœa disappeared. He has also used adrenalin tampons with success in the treatment of cervical catarrh and cervical endometritis.—*Berliner Klinische Wochenschrift*, No. 19, 1904.

Frank H. Pritchard, M.D.

HYSTERICAL SLEEP OF THIRTY YEARS' DURATION.—Prof. Lancereaux, of Paris, at a recent meeting of the Academy of Medicine related the case of a young woman of alcoholic parents who, after an intense emotion at the age of 22, was seized with convulsive attacks. After these she fell into a deep sleep, accompanied by anæsthesia and general contractures. This sleep, which was interrupted from time to time by convulsive phenomena, lasted for twenty consecutive years, until one day, after a convulsion, she woke up and recovered her mind and intellectual faculties. Her memory was affected, for she had wholly forgotten everything which had preceded the first attack. Some days after her apparent restoration to health, the patient, who had been fed with difficulty during this long sleep, died from pulmonary tuberculosis. The writer reports the case on account of the long duration; its hysterical nature is diagnosed by the convulsive phenomena, the anæsthesia, and the persistent contractures. Prof. Raymond remarked in the discussion that at the Salpetriere it was frequent that in inveterate hysterics prolonged seizures of sleep would be substituted for the convulsions. Isolation and mechanotherapy are the best measures in treating these symptoms of hysteria.—*La Semaine Medicale*, No. 10, 1904.

Frank H. Pritchard, M.D.

ATROPINE IN MECHANICAL OBSTRUCTION OF THE BOWELS.—Dr. Boseck referring to the results which were reported some year and a half ago with atropine in ileus, which cases were reported came mostly from private practice, recalls the warning which was sounded by surgeons that this drug might act in paralytic, but not in the mechanical, variety of this condition. He has observed a case which seemed to contradict this view.

A peasant of 42 years, with carcinoma of the cæcum, had a resection done in July, 1902, on account of serious symptom of obstruction of the bowels. In April, 1903, a small growth appeared in the scar which was removed. It was then seen that the disease had not only recurred in the citacrix, but that there was a large number of carcinomatously degenerated glands in the mesocolon and the mesentery. Hence no radical operation could be advised. The intestine itself seemed uninvolved. Some time after his discharge from the hospital he had difficulty with his bowels, which was probably due to pressure of the growths upon the intestines, for a certain portion of the gut seemed tense and rigid (*Darmsteifung*). The movements became more and more difficult, and finally high enemata were without effect. Eventually, after constipation of ten days' duration, when violent vomiting had commenced, four mgms. of atropine were injected. In four hours he passed flatus, and in sixteen hours he had a good loose passage. In a second attack, following an obstruction of eight days,

atropine acted well, but a third attack ended fatally. There is a whole series of cases where the practitioner will not be able to make out the cause, or where an operation is refused; here atropine may be tried, for the results of an operation are by no means encouraging.—*Münchener Medicinische Wochenschrift*, No. 9, 1904.

Frank H. Pritchard, M.D.

THE IODIDES IN ARTERIO-SCLEROSIS.—Prof. Erlenmeyer sums up his experience with the iodides given according to the rules which Vierordt and Huchard have formulated, *i.e.*, for a long time and at regular intervals. He has obtained the best results with a mixture of equal parts of the iodides of potash and sodium. If one would avoid iodism one should begin with small doses. Thus he commences with a solution of 2 gms. of the iodides in 240 gms. of water (about 83 per cent.). Of this he has the patient take 20 ccms. three times a day. This is gradually increased until ten times the beginning dose is taken; thus in thirty-seven to forty days the patient will have taken 110 gms. of the iodides. He ascribes iodism as depending upon the nitrates circulating in the organism. To prevent it one should administer 5 gms. of the bicarbonate of soda and prohibit the use of acid fruits and beverages, and especially fruit; he would also interdict wine after alkaline drinks. Sometimes this dietetic method may be begun before the course of the iodides is instituted.

The favorable results are due to the long duration of the treatment and the gradually increasing dosage. For example, when there are signs of hemiparesis one may push the iodides up to 300 gms. In those with arterio-sclerosis, as a prophylactic, one may administer from 150 to 200 gms. of the iodides. The graver the form of the disease, the more active should be the treatment, and the more frequently should the courses of the iodides follow each other. In those cases where the disease has not increased endocranial blood-pressure, one may alternate carbonic acid baths with the iodide treatment. Arterio-sclerosis being a malady which affects the system in general, prophylactic measures should be instituted as soon as the slightest signs of the disease are noted.—*La Nuova Rivista Clinico-Terapeutica*, No. 4, 1904.

Frank H. Pritchard, M.D.

SIMPLE CHOREA ENDING SUDDENLY IN DEATH.—Dr. Barie, of Paris, at a recent meeting of the Societe Medicale des Hopitaux, reported the case of a young woman of 19 years who died suddenly on the fourth day of intense and generalized chorea, but without any particular complication. No necropsy was allowed. Sudden death, which occurs in about 2.5 per cent. of cases of chorea, even in those of moderate severity, may be due either to nervous exhaustion, in simple chorea, or to some complication affecting the circulatory apparatus, as endocarditis; besides, it may be dependent on apoplexy, coma or acute mania, or to acute infection during the course of the disease, as erysipelas, lymphangitis, adeno-phlegmons, etc., following excoriations or wounds from the disordered movements of the patient. Prof. Comby, in the discussion, remarked that in three cases of fatal chorea he observed in two a vegetating endocarditis to be the cause of death. The third succumbed to a mitral stenosis with multiple pulmonary infarcts.—*La Semaine Medicale*, No. 17, 1904.

Frank H. Pritchard, M.D.

THE ALBUMINURIA OF PUBERTY.—Dr. F. Lommel has studied this condition from the material of Prof. Matthi's clinic at Jena, Germany. Leube first set this disease apart from physiological albuminuria and attributed it to a faulty consistency of the blood or a slight cardiac insufficiency, with an inclination to stasis; in short, it is a malady of development. The writer's material consisted of 587 school boys of 14 to 18 years, the greater number of whom were examined several times a year for three or four years. In 111 of these, or 18.9 per cent., albumin was found one or several times in their urine. In the majority the albuminuria was of a decided intermittent character; in one case one would find it at long intervals, while during the intervals the urine would be free; in others only on one or two occasions. Thus by examining only once or twice in such cases one would not diagnose the condition. The ferrocyanide of potash and acetic acid test was used. As to the quantity of albumin it usually was but slight, for it varied between $\frac{1}{2}$ –1 promille., and rarely more than this. Centrifuging would only rarely demonstrate hyaline casts.

In 90 cases of albuminuria there was in 38 cases a normal condition of the heart; in 13 there was undoubted dilatation of the left ventricle; in 11 abnormal resistance of the apex-beat; and in 9 there was a systolic murmur; the rest showed tachycardia or right-sided cardiac dilatation. Excessive bodily exertion did not in this state, as in physiological albuminuria, appear to play an important rôle, for examination before and after work gave the same results. Only two patients presented the orthostatic type, with normal urine while in bed and albuminuria while up and about. These cases could not be followed after the eighteenth year, but examination of adult workmen, out of 130, over 25 years of age, living under the same conditions, only revealed 1 case of albuminuria. The albuminuria of puberty hence must be distinguished from interstitial nephritis by the slight amount of albumin, the absence of epithelial or granular casts; hypertrophy of the left side of the heart and a pulse of high tension need not necessarily indicate interstitial nephritis.—*Hospitalstidende*, No. 11, 1904.

Frank H. Pritchard, M.D.

MYOPIA AND DIABETES.—Neuburger reports two cases of diabetic myopia, to which class of cases Hirschberg first called attention in 1890, and which observation is of the highest importance, because it was through the changes in the eye, rather the condition of the refraction, that the abnormal condition of the urine was first discovered. Both cases reported by Neuburger had been examined several months previously and been found to have normal refraction, and both made their appearance later with a refraction varying from minus 1.50 to minus 2 dioptres. In both cases an examination of the urine showed the presence of sugar. Diabetic myopia is generally attributed to a change in the lens. When we meet with a myopia suddenly appearing, we must suspect the existence of diabetes, though beginning cataract may be the cause, still an examination of the urine is called for. He calls attention to the fact that marked weakness of the accommodation is present in diabetes and not spasm of the accommodation.—*Annals of Ophthalm.*

William Spencer, M.D.

MONTHLY RETROSPECT OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

THE MANAGEMENT OF PNEUMONIA.—Dr. Simon Baruch, of New York City, in a lecture reported in *California Practitioner*, speaks in no uncertain way of the futility of giving drugs to pneumonia cases, and praises in glowing terms the superiority of hydrotherapy. All that he says is perfectly true—from an allopathic point of view. The author begins by recalling that since the days of Hippocrates pneumonia has been regarded as a disease which must be assaulted with the most powerful agents in the materia medica. That is, pneumonia has been so regarded by some physicians,—but these men have been in error. In 1835 Bigelow, of Harvard University, and Dietl, of Vienna, evolved a new method of dealing with the disease. This new method was called the “expectant method.” The latter physician, feeling mortified at the unfortunate results of the aggressive treatment that had been so long in vogue, visited the St. Elizabeth Hospital in which the homœopathic treatment of pneumonia was then being so successfully carried out. It is wonderful to relate, but actually true, that this keen observer discovered, during his investigations, that the success following homœopathic treatment was solely due to the fact that the patients received broths instead of weak gruels. He felt that no possible curative effects could have been produced by the medicines which the homœopaths administered. And he decided thus solely upon the conclusions of his biased and warped mind, which told him that such small amounts of medicinal substances must necessarily be inert. And so it must have been the broths and the *Vis Medicatrix Naturæ*! The expectant method was superior to the old aggressive method for the reason that it gave the patient a fighting chance to pull through. But, it did not yield as good results, after all, as the homœopathic method; and we suppose these earnest, but blinded, investigators never found out why. Dr. Baruch, in speaking of the management of pneumonia according to his newer methods, brings out several most valuable points which ought to be dwelt upon. 1. *Absolute rest*, the patient being isolated from family and friends and under the sole charge of a skilful nurse. 2. *Perfect ventilation*, even in cold weather. 3. *Plenty of water*. Four to six ounces of water at the temperature of 40° F., every hour. This enhances the circulation by shocking the walls of the stomach at the

moment of first contact. 4. *Hydrotherapy*. He applies a wet compress, cut in the shape of a waistcoat, wrung out of water at 60°, and covered with a flannel waistcoat somewhat larger than the compress. Never cover the compress with oil silk. That makes a poultice and defeats the purpose. Repeat such compresses until the rectal temperature reaches 99.5°. A compress used in this way effectually prevents heart failure, reduces temperature, eliminates toxins and brightens up the patient. Cases treated in this way generally end by lysis instead of having the usual crisis. Dr. Baruch uses strychnia should the first sound of the heart become weakened, and he also cleans out the intestines at the beginning of the attack by calomel. He does not use alcohol very often, and principally in alcoholics. His results have been splendid. This paper in its entirety has been republished in *Pacific Coast Journal* for August, and is worth a careful reading. It seems to us as if this method, plus the similitum, ought to bring results that would cheer up the pessimists who have lately decided, once more, that there is no "cure" for pneumonia.

TREATMENT OF PLEURISY WITH EFFUSION.—Dr. George L. Van Deursen, in *New England Medical Gazette*, has called our attention to the danger of delay in the removal of a pleural effusion until lungs and heart have been subjected to pressure and displacement. It has been the custom for writers of text-books to give us a series of rules and indications for the removal of effusions which would not absorb under medicinal treatment. But in view of the fact that aspiration of the pleural cavity is a harmless procedure, and in view of the fact that the pressure of a pleural effusion, even if exerted for a short time only, may damage the lung beyond repair or even cause sudden death; it would seem as if the proper time to remove an effusion was soon after it has been recognized. We have for a long time thought that nothing was gained by delaying aspiration until the effect of internal remedies had been tried, while the patient was at the same time exposed to the very considerable dangers above referred to. Perhaps it is always better to aspirate early and, after that has been done, prescribe our remedies.

HIGH-FREQUENCY TREATMENT.—James Searson, M.D., declares for the undoubted value of high-frequency currents, as an adjunct to medicinal treatment. He refers to his success in neurasthenia, in anæmia and in rheumatoid arthritis. In the latter tedious affection, the author has obtained better results than from any other form of treatment. From his results, so far obtained, in cardiac dilatation, this method promises to accomplish more than has hitherto been obtained from drugs. The author applies the current in the following manner: The patient sits or lies upon a couch, to the under part of which metal plates have been attached. These plates are attached to the apparatus. The patient simply holds, in one hand, an electrode also connected. Electrification is general. In neurasthenic cases, he adds the *effluve* to the spine.—*Monthly Homœopathic Review*.

ARANEAE TELA.—This is the cobweb of the common black house spider, prepared for administration either from tincture or from trituration. In the *Medical Advance*, of recent date, Dr. W. A. Yingling wrote enthusiastically

of its potency as a remedy for the sleeplessness, excitement and nervous agitation which attend so many febrile states. These effects have long been known. It seems as if it immediately lowers the pulse-rate, producing at the same time a calmness and tranquility which permits of the much needed sleep. In periodic headaches, in the dry harassing nervous coughs, in troublesome nervous hicough, in asthma, as well as in other similar conditions, marked by extreme nervous erethism, restlessness and sleeplessness, the remedy is dependable. It controls febrile states well. Thus, in obstinate intermittents, it sometimes relieves abruptly, quieting all the attendant excitement and fever. Tremors, startings, spasms and deliriums have also yielded nicely. It would seem to be characterized by a state of great nervous excitement, sleeplessness and fever. Dr. Yingling does not hesitate to prescribe the 2000, and, as he gets the desired effects, we need not fear to place our confidence in potencies of the medium grade. Indeed, it is likely that the medicinal virtues of such crudely inert drugs are only present when developed by dynamization.

CUPRUM ARSENICOSUM.—Dr. A. Stiegele finds this remedy not only useful in many forms of acute gastro-enteric difficulties, but also curative in many sub-acute and even chronic diseases of the stomach and intestines. Clinical experiences confirm the value of the striking symptoms found in its pathogenesis. This author refers to a number of clinical cases of enteritis that were promptly cured by this remedy. The cases were infants from a few months to a few years of age. From the clinical pictures presented, we may draw the following general conclusions: Stools of greenish color, choppy green stools, watery green stools, mixed green and yellow, greenish stools containing much mucus, are cured by this remedy when the child is emaciated and suffers from colicky pains in the abdomen. The action of the remedy seems to be gradual, so that, as might be expected in such cases, the cure was not complete until the child had taken the remedy for some days.—*Hom. Rec.*

IMPROVEMENTS IN DIETETICS IN DIABETICS.—Commenting upon the conclusions of Mossé regarding the value of potatoes in the dietary of diabetics, Dr. James Sawyer says that he thinks it will be generally found in practice that the permission of potatoes in the food of diabetics is one of the greatest dietetic advances of our time. Mossé found that the ingestion of two or three pounds of potatoes daily brought about speedy diminution in the amount of sugar excreted and a general improvement. The salts contained in the potato are chiefly those of potash. For the retention of these salts the potatoes should be cooked by "steaming in their skins." The author has also found that the therapeutic difficulty as to the prohibition of ordinary bread for the diabetic may be met advantageously by making bread, cakes and biscuits out of the flour of potatoes instead of ordinary wheat flour. The potato steamed in its jacket is reduced to a paste by the aid of some cream and butter and from this cakes are baked. They are said to be delicious. The author has also combined this potato paste with bran, and from this he makes excellent bread. He gives as his exact formula the following: Half pound steamed potatoes, quarter pound of bran, half ounce German yeast, half ounce butter and one egg. Twenty-four hours previous to making the bread

the potatoes are steamed in their jackets, peeled and broken up into flour. This flour is mixed with all the above ingredients and allowed to stand by the fire for an hour to "rise." The bread is baked in greased tins for an hour and a half. These details have been given, because the average physician does not know too much about the preparation of the various diabetic foods, and because our patients invariably expect us to be able to give them the exact data as to the preparation of foods which they have been ordered to eat. In *The American Physician* for July, Dr. Sawyer also gives his diet-lists for diabetics.

THE CARE OF THE HEART IN TYPHOID FEVER.—Dr. George Royal, in *North American Journal of Homœopathy*, considers the causes of cardiac weakness during typhoid fever under the usual headings of *predisposing* causes and *exciting* causes. The specific poison of the disease, excessive previous use of either alcohol, tea or tobacco, tendency to obesity and pre-existing heart disease, notably compensatory hypertrophy. These he considers the most important predisposing causes. It is interesting to note that, while the typhoid poison may be considered capable of setting up in the heart either endocarditis, pericarditis, myocarditis, fatty degeneration or hypertrophy, it is oftenest, in the experience of the author, that this poison is responsible for what might be termed an imperfect *regeneration* of the heart muscle. For this reason we should keep our patients under observation for three or four months after convalescence, meanwhile watching for any evidences of an imperfect return to cardiac health. It would also seem that a heart that is the seat of a compensating hypertrophy is very much more likely to become affected by a fatty degeneration, during the course of a typhoid, than is the normal heart. Among the immediately effective exciting causes of cardiac weakness, during typhoid, may be mentioned the excessive administration of very cold baths. Almost as important is the faulty adjustment of the nourishment during the various stages of the febrile malady. It is likely that a typhoid patient will do best if *underfed* during the period when the temperature is steadily rising or very high; and if he be, on the contrary, well nourished during the stage of febrile decline or normal temperature. This author points out as *danger signals* to be watched for in every case of fever: Prolonged insomnia; rapid, irregular, wavering or intermittent pulse; heart murmurs. Equally, if not more, important would be a violent or long continued delirium with marked nervous phenomena. Dr. Royal does not accent the usually lauded treatment such as strychnia, caffeine, alcohol and digitalis; but finds that remedies like bryonia, phosphorus and arsenicum album are quite capable of taking care of the cardiac weakness. It sounds odd that the author has not found, in a single case, where the heart was previously healthy, any tendency towards cardiac weakness when the patient has been carried along upon bryonia alba. We shall all be willing to accord to bryonia a prominent place in the treatment of any of the cardiac inflammations that are likely to arise during typhoid. Experience places it at the head of remedies for endocarditis, pericarditis and such heart ailments, the result of the specific toxæmia. When there has existed, previously, some cardiac weakness or disease, or where we are dealing with a more positive character of degeneration, it is likely that phosphorus or arsenicum will prove

to be more effective. Dr. Royal sometimes uses the phosphorus compounds, such as kali phos., strychnia phos., or even ferrum phos. It is, of course, noticeable to those who observe, that the physicians who reduce temperature by acetanilid and very cold baths, combatting the resulting depression by alcohol and strychnia, are much more frequently brought face to face with serious cardiac weakness than are those physicians who fear to practice this fast and loose therapeutics. Fortunately, the fad for depressants is passing away.

OBSERVATIONS ON THE THERAPEUTIC VALUE OF BORIC ACID.—T. W. Kennedy, M.D., in *Eclectic Gleaner*, expresses the opinion that a *red, dry, cracked tongue* may be considered an excellent clinical indication for boric acid. The action of the borates upon mucous membranes would tend to confirm this indication from the homœopathic standpoint. Such an indication for the acid would likely occur during the course of prolonged fevers or during the progress of chronic kidney disease. The author has found it during scarlet fever, when the kidneys were exhausted and albumin appeared. He further considers the boric acid his most valuable remedy in diabetes mellitus. Stopping the use of meats, he gives a No. 2 capsule full of boric acid every four hours. Diabetes insipidus is also controlled by it without care as to diet. Dr. Kennedy prescribes boric acid for frequent urination with burning and tenesmus, in women especially. These are striking clinical statements.

FRAXINUS AMERICANUS FOR UTERINE HYPERTROPHY.—From his own clinical observations, Dr. J. S. Neiderkorn concludes that this remedy acts best in cases of enlarged, heavy, congested, subinvolted uteri, with much leucorrhœal discharge and with profuse menstrual discharges. The concomitant symptoms are dragging in the loins, falling-out sensations, weight and general pelvic distress, together with a degree of anæmia produced, no doubt, by the excessive flow. Dr. Burnett used this remedy extensively, and found it particularly serviceable in the treatment of uterine fibroids with bearing-down pains.

ABOUT GALL-STONES.—Frederick H. Williams, M.D., relates his experience with four cases of gall-stones, and we think the recital interesting because it is so suggestive of other cases which have fallen to the lot of all of us. The stones would not come away. There were frequent attacks of pain without movement of the stones, and jaundice and progressive debility. We feel sure that such indications would have suggested operative measures to us. These cases had been under the care of physicians who administered many hypodermatic injections of morphia. The author tried to loosen the stones by the use of sodium phosphate and olive oil, but was not successful. Then he realized that something must be used that would *relax* the channels, and selected a mixture of equal parts of saturated tincture of lobelia seeds and deodorized tincture of opium. When the spasms of pain came on he gave from 5 to 7 drops of this mixture every ten minutes until easy. Now for his results. In the first case, which had been ill for two years, he obtained a stone as large as a peach-meat; from the second case he recovered twenty-five stones the size of dried peas. The third case looked malignant, but after passing some brown concretions recovered perfectly. After the passage of the stones and

the cessation of the pains, the doctor administered chionanthus and euonymus.—*Eclectic Medical Gleaner*.

EXPERIENCES WITH TETANUS.—Dr. W. C. Cooper, who has severed his editorial connection with the *Medical Gleaner*,—we are sorry to say,—has written his experiences with tetanus and gives a line of treatment that he claims has been very successful in many cases. The results obtained by the modern serum treatment of tetanus have not been such as to justify the profession in utterly ignoring and discarding older, if humbler, therapeutic measures that have been successfully used in hundreds of cases. Dr. Cooper, himself, narrowly escaped tetanus and used the treatment about to be mentioned in his own and in several other cases. He first cleansed the wound thoroughly with *hot salt brine*. After this he applied pure turpentine every few hours. The spine was rubbed vigorously with strong hot mustard water, and actea racemosa and gelsemium were administered internally. In two of the cases mentioned, the convulsions, episthotonos and fixed jaws made the diagnosis certain; and the doctor thought death inevitable. The above treatment cured, however. It has been stated that the hypodermatic injection of 2-per-cent. solution of carbolic acid is specific in this dreadful malady.

IN DEFENCE OF THE ATTENUATED DRUG.—The paper by Royal S. Copeland, which appears in September *Medical Century*, is a masterly *resume* of modern thought concerning the theory of solution, function of cells, selective affinity of cells and the effect of drugs upon the human body; and how interesting these subjects can be made is revealed by a reading of this splendid essay. With the present state of our knowledge concerning these matters it is quite unnecessary for any homœopathist to speak longer of the mysterious spirit-like force of drugs or of the mysterious dynamis. The infinitesimal doses of homœopathy are as reasonable, as explainable, as scientifically sensible, as any other of the natural sciences. Starting with the statement that the cell is the morphological unit of life, Dr. Copeland shows us that the manifestations of cell activity are for the most part concerned in its metabolism. On the one hand we notice anabolism, or the building up of the cell; and, on the other hand, we have katabolism, which latter has to do with the breaking down of the cell protoplasm. These two series of metabolic changes are going on simultaneously and equally in the normal healthy cell, and the condition is known as health. And as the process of metabolism is essentially a chemical one, we may describe the normal cell as being one in a state of chemical equilibrium. The pharmacologists used to speak of the "elective affinity" of *drugs* for certain parts of the body; now they speak more correctly of the selective affinity or "tissue proclivity" of the *tissues*, for certain drugs. This accounts then for the appropriation of drug-substance, no matter how infinitesimal, by those cells which demand that particular element. Sometimes, perhaps, we forget how small a cell is. A cubic inch of liver substance contains about 156,000 million cells! It does not require much thought to determine that any drug to be of possible use to such infinitesimal organisms ought to be presented to those cells in most minute form. When a chemical is dissolved, it is dissociated into parts or particles that are smaller than molecules and which are known as *ions*. The more dilute the solution,

the greater is the dissociation, and consequently the molecules are less in number and the ions increased. It is safe to say that complete dissociation of even a simple drug is not accomplished under the sixth decimal solution. In the light of modern science the power of a drug is increased by the dissociation of its molecules. Dr. Copeland's investigations have led him to believe that, in the light of the modern theories of solution, the dilutions of our remedies are much more liable to contain all the ions of the medicinal substance than are either triturations or tablet triturates. It follows then, naturally, that as health depends upon a condition of chemical equilibrium in the cells of the body, if there be a disturbance of this equilibrium, there will at once be disturbances in function and even changes in structure. A remedy, then, is anything that will restore chemical equilibrium. The ideal prescription, in the administration of a drug, is the minimum possible quantity to satisfy the disturbed cell, in such dissociated condition as to make its appropriation by the cell the simplest possible chemical reaction; and, in such form as not to interfere with the protective forces of the body. The author in concluding this unusual paper pays eloquent tribute to the genius of Hahnemann, whose gigantic intellect was capable of formulating a system of therapeutics so accurate in its essential parts that the rest of the scientific world has adjusted and readjusted itself, until now it snugly enfolds and perfectly fits every feature of the homœopathic doctrine. We may study the modern ideas of disease, morbid processes as they are now understood, may delve in physical chemistry, may listen to the forensic eloquence of the chemist, physiologist and pathologist; but if we will take down the *Organon* of Hahnemann we shall find that the notes of all later-day scientists are so attuned to what is written there that no suspicion of discord can be detected.

AURUM METALLICUM.—Dr. Frank Kraft, in *Medical Century*, towards the end of his article upon aurum, mentions one indication for the remedy that is worthy of a place in our minds for all time. He thinks that the word “*ennui*” expresses a condition that often calls for gold. For example: A rich young person, of either sex, who has been pampered and coddled and given everything the world possesses before he or she was 25 years old, comes to us with some genital disease, mild or grave, and a fearfully depressed mind. In such a case aurum is often the only remedy that will restore such a patient to a normal state of thinking and living. We remember well that some years ago the parents of such a young man came to us with the statement that the youth was going insane and asking that he be placed in a suitable institution. This young man was in a truly deplorable state. From his infancy he has been the victim of a luxurious life. Pampered in every way, allowed to have whatever his imagination pictured, never disciplined nor corrected, he had reached youth with an entirely erroneous conception of life and its responsibilities. It was natural that such a youth should fall in with bad company, and having every facility for obtaining the abnormal gratifications of life, he reached his majority with a body wrecked physically, and with a mind perverted in every sense. During his experiences he had contracted gonorrhœa and also a venereal sore, which various quacks had convinced him was specific in nature. When he came to us, he talked and acted as if he was insane. More than once he had tried to kill himself, so his parents averred; but,

whether his intentions had been serious, we could not determine. It would make a long and tedious story, but in the end we were victorious, having the satisfaction of seeing him restored to a normal physical and mental condition, an active and efficient business man, and, finally, a model husband and father. It is not necessary to say that this man's children were raised as children should be raised. Aurum metallicum was of the greatest assistance in the cure of this case, and saved him from the asylum, in all probability.

ON TREATMENT OF DISEASES OF BACTERIAL ORIGIN.—C. E. Tennant, M.D., of Denver, says that in his clinical experience in public hospital practice, during the past few years, the treatment of acute lobar pneumonia in early or middle adult life by guaiacol carbonate has been more satisfactory than the treatment of the same disease by homœopathic remedies. The author claims that under the guaiacol treatment it was no uncommon thing to see the disease abort, while under homœopathic measures the disease progressed, with the usual history, to crisis. These observations seem to confirm the opinion expressed by Dr. W. C. Goodno at Niagara Falls. Dr. Tennant also noticed that those cases of acute articular rheumatism which received sodium salicylate and bicarbonate of sodium reacted more quickly and more definitely than did similar cases under homœopathic medication. Dr. Tennant is a close and competent observer, and he makes these observations in the interest of truth. He thinks such unbiased mutual comparison of methods and results will prove of value to both schools of medicine.—*Progress*.

INFLAMMATORY RHEUMATISM.—In the same number of *Progress* appears a paper from the pen of Sarah E. Calvert, M.D., in which the statement is made that the author considers colchicum tincture the best remedy in acute inflammatory rheumatism. If the fever is high, ferrum phos., 3x, is alternated. After all swelling and soreness have passed away, pulsatilla, 3x, is given, and later on chininum ars., to finish up the cure. These things will surely displease the men who have spent their lives in an endeavor to teach that careful differentiation is necessary to success in homœopathic prescribing; but the latter must show that their results are better, or the younger men will, doubtless, adopt the easier course. Surely Dr. Osler might be considered to have had fairly good opportunities for watching the effects of the salicylate treatment of rheumatism. He says the salicyl compounds act chiefly by relieving pain. They do not influence the duration of the disease, nor do they prevent the occurrence of complications, while under their use relapses are more frequent. Dr. G. P. Howard's elaborate researches proved such statements to have been correct.

ADRENALIN IN THE TREATMENT OF GLYCOSURIA.—In a large number of cases of glycosuria, extending over at least four or five years, I have used the second decimal trituration of adrenal extract. Even in the more advanced stages it has removed the sugar, and also the evidences of acetone and of diacetic acid, resulting in the rallying of the patients and the prolongation of their lives. I have yet to meet with a case in which sugar was persistent in the urine after one week's use of the drug. Three grain powders of the second decimal trituration, or occasionally of the third decimal, were given every four hours. In its action it has presented to me some of the most

marvelous results that have ever come to me in long years of practice. This is the statement made by Dr. B. F. Bailey in August *Progress*. It would seem as if such a statement as this from such a source would be of the greatest interest to every reader of *Retrospect*. Let us have confirmations as they occur.

RELATION OF DIPHTHERIA ANTITOXIN TO HOMŒOPATHY.—It is self-evident that for an antitoxin to be homœopathic to a condition produced by a toxin, it is necessary that the antitoxin shall have the power to produce in the healthy organism a condition similar to that which has been produced by the toxin. It has not been demonstrated that anti-bodies are capable of doing this. Furthermore, it is improbable—not to say impossible—that such power could equally belong to both toxin and antitoxin; for, if this were true, then it would be immaterial which should be used for therapeutic purposes, for each could be trusted to produce the same effect. In other words, a toxin and its antitoxin would be pathogenetically identical, and this we know is not the case. While the foregoing proves nothing, it is suggestive of the fact that we may regard the claim that antitoxin is homœopathic to diphtheria, as unsustained.—Eldridge C. Price, M.D., in *N. A. Journal of Hom.*

THE DOUCHE: ITS RELATION TO THE PUERPERIUM.—The time is probably past when it was considered good practice to employ the douche as a routine measure not only before labor, but during the period in which there is lochia as well. Three facts have come to light regarding the douche. It may subject the birth canal to possible contamination from without. The so-called antiseptic solutions, used in the douche, exercise little or no bactericidal action on the genital tract, and are therefore less useful than might be supposed. Experience has shown that febrile puerpera are of more frequent occurrence where the douche has been used. This latter statement may, perhaps, need substantiation. Kronig and Brietschneider followed 2280 cases in the Leipzig clinic, every alternate woman being douché. The puerperium was febrile in 45 per cent. of the douché cases, and in those not douché but 36 per cent. were febrile. Perhaps the thought that has been uppermost in the minds of the obstetricians has been a desire to secure bactericidal action, but there are few antiseptic solutions of sufficient strength to kill the germs present on the surface of the genital canal, to say nothing of the futility of expecting that the antiseptic will penetrate tissue and reach the real site of bacterial activity. After all, the douche is generally a mere *cleanser* of the genital mucous membrane. It is not the intention of Dr. McCaughan, in *Clinical Reporter*, to deny the utility of the douche, skilfully applied and under the proper circumstances; but he insists upon the superiority of the *milder* antiseptics. The obstetrical novice, we think, should pay especial attention to the cleanliness of his own hands and the hands of his nurse first; then he should attend to the cleanliness of the external genitals of his patient, as well as to the cleanliness of all instruments, utensils or clothing which may come into contact with the body of his patient. For the use of a strong antiseptic douche will not altogether counteract a laxity of method in the first mentioned particulars. He should also remember that the mucous membrane of the genital tract is almost equal, in absorptive power,

to that of the stomach, and should use care in the choice and strength of his antiseptic agents used in the douche. Dr. McCaughan's paper touches upon an important topic.

HYDRASTIS CANADENSIS IN TORPIDITY OF THE BOWELS.—Those of us who have sometimes wondered whether, after all, hydrastis is as useful in constipation as has been claimed, may perhaps find one cause for non-success in Dr. Frederic Kopp's case, reported in *Homœopathic World*. The patient was 29 years of age, and had been accustomed to take a great variety of purgative medicines, which did no permanent good, and really produced a marked torpidity of the intestinal canal. The doctor has found that hydrastis cures this unfortunate condition. He prescribes the first decimal dilution—36 drops in 6 ounces of water: Tablespoonful doses every four hours. But Dr. Kopp continued this remedial agent for *two months*. After that period had passed, he gave the same dose at bedtime only for another month. We possibly have not been as persistent as this in our use of hydrastis, and so have not obtained its full curative effects.

THYROIDIN IN ENURESIS.—As Dr. Clarke remarks, in July *Homœopathic World*, to Dr. Lambrechts, of Antwerp, belongs the credit of the discovery of the very striking effects of thyroidin in enuresis. This investigator proceeded along homœopathic lines in his experiments with the medicine. It is more than probable that thyroidin will be found to be useful in many ailments dependent upon not only an imperfect, faulty or stunted development, but also dependent upon or associated with a nervous state and general debility. The cases in which this remedy have been successfully used, all showed in varying degrees delicacy of constitution, nervousness, imperfect or retarded physical development. In one case there was an aggravation of the enuresis during the winter, when the weather was cold and the wind from the north. Some may assume that such an aggravation might invariably occur, but such is by no means the case in enuresis. The dose prescribed by Dr. Lambrechts was $3\frac{1}{2}$ grains of the 3x trituration, in water, given in two portions during the day (night and morning). He says that if the case is an obstinate one, the 2x may be tried. His general indications were—weakly children, who are nervous and irritable. Truly, a large number of our cases of enuresis might be so termed.

CEREVISINE IN PURULENT CONDITIONS.—Cerevisine is simply desiccated brewer's yeast. It was first used by Spanish physicians as a more agreeable substitute for the ordinary brewer's yeast, and may now be obtained through the Fongera agency. Dr. Thomas M. Stewart, in *Clinique*, praises it highly in the treatment of boils in the nose and in the auditory canals; in purulent discharges from the internal ear; in all pus and septic cases. In recurrent furunculosis, sometimes so troublesome, we have long held the brewer's yeast in favor; and this pleasanter substitute will no doubt be useful. The ordinary brewer's yeast is not such an unpleasant dose as many imagine it to be. It is not always easy, however, to get good, fresh yeast; hence the particular utility of cerevisine, which may be given either in capsules or in water. It has been recommended given in beer, but the latter *produces* boils and pimples in some persons.

THE HAHNEMANNIAN MONTHLY.

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THE PROPHYLACTIC POWER OF SOME DRUGS.

BY JOSEPH C. GUERNSEY, A.M., M.D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of Pennsylvania, September, 1904.)

THE HAHNEMANNIAN MONTHLY for June, 1904, contains an interestingly instructive article by Willard Ide Pierce, M.D., entitled "Some Prophylactic Remedies." I quite agree with Dr. Pierce "that we cannot deny the assertion that a given patient would have remained immune from a certain disease even if no medicine had been taken . . . still if we meet with uniform success . . . we are justified in believing that certain remedies do act as preventives in certain diseases and that we should use them."

Prophylactic, *i.e.* preventive, treatment has been and now is too much neglected by physicians. The subject has been brought to our notice many times and in many ways only to find us slow to appreciate, to search for and to adopt preventive measures in the practice of medicine.

Hahnemann counseled the use of Belladonna as a preventive of Scarlet fever and Camphor as a preventive of Cholera.

Jenner gave us vaccination, the prophylactic power of which has saved countless thousands of lives from death-dealing Small-pox.

Korndörfer promulgated the prophylactic power of an aqueous solution of *Potassium Cyanide*, as a positive protection against

the spread of Small-pox among the inmates of a house where it already existed.

The injection of diphtheritic antitoxin is asserted to immunize those coming in contact with diphtheria.

The Pasteur treatment claims to prevent rabies.

Every surgeon in the world practices prophylaxis! He calls it antisepsis; but that is only another term having the same meaning. He never makes a cut, that he does not immediately apply his prophylactic—formaline, bichloride of Mercury, boric acid or some other germicide, to prevent the formation of pus and its consequences.

The obstetrician uses prophylactic measures with such success that the dread disease of our forefathers, known as "Child-bed" fever has been nearly exterminated.

Dunglison's *Medical Dictionary* defines Hygiene to be prophylactic medicine.

When I speak of *prophylactic drugs* I mean those which I have found efficacious

1. In totally preventing any appearance of a disease.
2. When administered at the very beginning of an illness, the symptoms are immediately extinguished. For then, according to Hahnemann's *Organon* § 8, "when all the symptoms are extinguished, the disease is, at the same time, internally cured."
3. Remedies which destroy the tendency or predisposition to a recurrent disease (as *e.g.* see below in Apis; its effect on Styes).

My chief success with drugs given as prophylactic has been in their potentized form.

Aconite.—Exposure to dry, cold air. This exposure may be sitting in a dry, cold room, church or theatre; or a long drive on a dry, cold day in the cars, a carriage or sleigh. Two or three doses of Aconite, about two hours apart, during or soon after such exposure will prevent ill effects, such as cold, pneumonia, &c.

Apis.—In my hands, Apis 40m has, with almost unfailing regularity, promptly cut short styes and felons besides curing the tendency to their recurrence in patients who are subject to them—particularly the styes. In cases of felon I also direct the afflicted finger to be frequently held in water hot as can be borne. I have found Apis infinitely superior to Pulsatilla in

styes, as a curative agent; as a check to an attack (*i.e.* an extinguisher) at the very onset; as prophylactic against future attacks. I have not had any experience with Staphysagria (that remedy *par excellence* for agonizing toothache; also severe pain in fresh, clean cut wounds) in the treatment of Styes.

Argentum nit.—This remedy prevents ills arising from the excessive eating of candy and sugar generally during Christmas week or any other time.

*Coffea*²⁰⁰.—Serves me well in preventing sleeplessness, heart palpitation, &c., after drinking coffee at night.

Nux vomica.—It is always prudent to take some of this remedy to prevent gastric derangement (indigestion, headache, &c.) after a big meal has been stuffed into one; also after a late supper or after “a night with the boys,” before going to bed.

Arnica.—Give this remedy immediately to any one who has received a severe blow—especially if on the head—or a fall, or one who has undergone severe muscular exertion as *e.g.* (unless contraindicated by special symptoms) *after parturition*. For twenty-five years I have made it a practice to give Arnica (high), a dose every two or three hours, for several hours, as soon as the baby is born and my exemption from post partum sequelæ has been most satisfactory.

Arsenicum.—Dr. Ad. Lippe told me to use Arsenicum as a “Sea-shore” remedy both to prevent the ills as well as to cure those caused by going to the Sea Shore.

I recently sent an old gentleman to Atlantic City who said: “I love the Sea Shore and would like to go there—but it does not agree with me. I get asthma, diarrhœa, am chilly, &c. I am therefore compelled to remain inland every Summer.”

I gave him Arsenicum³⁰ several days before he started and a supply to keep using after reaching there. To his surprise and pleasure he remained for several weeks with great comfort.

Baryta iod.—This remedy, brought to my notice by Dr. Wm. C. Goodno, has proved very efficacious in promptly extinguishing Quinsy if taken when the first symptoms appear. I have used it only in the 2x potency and it seems to overcome the predisposition to Quinsy as well as check a threatened attack.

Belladonna.—With Belladonna I have very, very often extinguished a red, angry lump, that was just beginning to throb, especially when located in the back of the neck. I am firmly

convinced that very many, if not a large majority of boils and carbuncles can be prevented by the prompt exhibition of *Belladonna*. I use it in the 30th and 40m.

Bryonia.—The question so often asked and so frequently debated, "Can Typhoid fever be aborted?" should be answered "Yes," *provided* the proper prophylactic measures are adopted at the very beginning of the disease. When Typhoid fever is suspected, instantly put the patient to bed and keep him there; give only liquid diet, preferably milk; give *Bryonia* every two hours, gradually changing to three and four hours as improvement warrants, until the symptoms are extinguished. I have experienced such satisfactory results from the above treatment that I believe in it most heartily.

China.—During or immediately after living in a malarial district it has seemed to me that *China*³⁰ has warded off "chills and fever."

Gelsemium.—Dr. Wm. C. Goodno advises the administration of *Gelsemium*⁴⁰, in three to five drop doses, every two hours, at the very beginning of "a cold," as sure to break it up immediately.

Hypericum.—The late Henry N. Guernsey, M.D., claimed that this drug should always be given to a human being or a horse after a punctured wound—such as stepping upon a nail, &c., as preventive of lock-jaw. I have given it to my patients, and horses, in the above conditions, for many years.

Pulsatilla.—Our forefathers lauded this remedy as sure to prevent a mal-presentation in labor. They declared that, by giving it at the very onset of labor, the head would engage and that in due time a normal delivery would result. I have always used *Pulsatilla* in this manner, never lower than the 30th potency, and after an experience of several hundred Confinement cases have seldom met with any presentation but the head; and, so far as I can now remember, it so happened that in cases of other presentation I had not been able to give the remedy early enough. I usually leave *Pulsatilla* at the house of a patient and direct her to take it "just as soon as labor pains set in;" or when "the water breaks." If the remedy is taken, and it often is, for false pains, no sort of harm is done the patient—rather she is benefited. So the procedure is wholly permissible.

Rhus tox.—Always take this remedy after a sudden and a

thorough drenching by a heavy shower of rain—or getting suddenly wet through in any way as falling into the water unexpectedly, &c., especially if the wetting has occurred during perspiration.

DISCUSSION.

DR. BOYER: The subject of prophylaxis is one that entered very much more into the consideration of a physician twenty years ago than it does now, especially in the administration of potentized remedies. Of the newer remedies mentioned by Dr. Guernsey, apis is something entirely new to me and possibly to many of us, in the application mentioned; it certainly is worth the trial. Staphysagria has given me a great deal of satisfaction in its administration in cases of sty and in individuals who are liable to that affection. The iodide of sulphur in the third decimal trituration is a remedy I have employed often where the tendency is to struma associated with frequent styes. The remedy which I have been in the habit of using most frequently in households where there is a child suffering with diphtheria is carbolic acid; twenty drops of carbolic acid added to an ounce of glycerine, saturate the pellets therewith, and of the number thirty pellets give eight or ten at a dose several times a day. It is not homœopathic so far as its administration goes, but I will assure you it is very helpful. We do not need to speak additionally of that great boon, antitoxin. The diphtheria antitoxin which we can rely on as a curative agent if used under precautionary conditions, is prophylactic. I have had some experience with tubercular antitoxin but the results were negative. Papers of this kind are practical. They bring to mind something that existed with us in times gone. We may have forgotten or neglected or not have been in the habit of using them again and again. Belladonna surely is an excellent remedy when administered sufficiently high. I mean the 15th or the 30th when I say high. I am very glad to congratulate Dr. Guernsey on the practical nature of his paper, and hope that he will try something on us again at another time.

DR. MOHR: I have believed for many years that any remedy that cures a disease when selected according to the principle *similia*, may prove prophylactic to that disease. Of course the difficulty comes in proving our position. There are some

authorities who claim that *Belladonna* is not prophylactic of scarlet fever. It is so stated in some of our homœopathic works, and yet Hahnemann declared that *Belladonna* was prophylactic in a certain variety of scarlet fever when it was given to children who were exposed to the contagion; I have demonstrated this for years to my satisfaction, yet I cannot prove it. But I want to call attention to a fact within my experience in the last few months. We have had an epidemic of scarlet fever in Philadelphia, especially in the suburbs in which I live. There was one young man attacked who died under old school treatment. His sister, a child about 7 years of age, was sent from the house, did not contract the disease;—it was supposed because she was not exposed to the poison. Within a few squares of that house were five children attacked successively because no measures were taken to prevent the infection, except such as were employed by the city health authorities. In contiguous houses where I was engaged to see two cases through, one boy 5 years old had the Sydenham variety of scarlet fever, such as we rarely see nowadays, the skin from head to foot was scarlet red and shining, with other typical *belladonna* symptoms. I isolated him, but two other children in the house who could not be removed from home, although the house was quarantined, received *belladonna* in the third decimal dilution, three doses per day. Those children escaped scarlet fever although never out of the house. In another nearby house, where a girl 7 years of age contracted scarlet fever, there was a girl 14 years of age, and the mother was very much exercised at the scarlet fever her child suffered from because she had never had the disease, and two servants, who were young girls, were half frightened and did not want to stay in the house. They all received what I call prophylactic doses of *belladonna* and did not contract scarlet fever. I repeat, I think it is a fact that if a remedy is indicated according to the principle *similia* to a given disease, that remedy may also act prophylactically in those who are subject to contagion. I want to say something in regard to *staphysagria* in styes. I have occasionally found recurring styes were followed after awhile in certain subjects by what is called chalazion. I am treating a girl now to whom I am giving *staphysagria*, and the tumor of the eyelid is disappearing. I have frequently used

the remedy as a prophylactic in recurring stytes, in order to prevent recurrence or the formation of chalazion. In regard to the abortion of typhoid fever with *bryonia* or *baptisia*. I always question the term "abortion of disease" because we cannot prove we have aborted a typical disease. We can only prove that a subject who had symptoms beginning like those of typhoid fever was given a certain medicine and did not develop the disease. In this case, of course, the remedy prevented what threatened to be a continued fever, but we cannot say it was abortive, as it may not have been typhoid fever at all. I want to say a word in regard to syphilis. We have been taught for some years that you must never give *mercury* to any one until you have determined positively that the patient has syphilis. I give *mercury* in minute doses to every man whom I suspect is a possible subject of syphilis. I think, although I cannot prove it, *mercury* when given properly in the beginning of such suspected disease, especially with a venereal sore, will prevent that subject from developing the syphilitic disease or at any rate will modify it. In regard to *ledum*, I do not know how many times I have applied a drop of *ledum palustre* tincture to a punctured wound or sting of an insect, in cases when it has not been applied would have been followed by the ordinary inflammation and adenopathy due to such wound. Of course, we make all these assertions, they are hard to prove, but what harm does it do any one for the homœopathic practitioner to apply these medicines when he has good reason to do it, either for the prophylaxis or cure of disease?

DR. DIETZ: I will commence with Belladonna as a prophylactic in scarlet fever. It is well known that the scarlet fever prevalent in the time of Hahnemann and during that whole century was the so-called *Scarlatina lævigata*, the smooth scarlet fever, and there is no doubt that in those cases, and in those cases only, Belladonna is a true prophylactic; but it is not prophylactic in the so-called miliary form. Dr. Guernsey mentioned *Hypericum* as a remedy for punctured wounds. *Hypericum* is the remedy *par excellence* for all traumatism involving the terminal endings of nerve fibres and especially in traumatism of the spinal cord, for concussions of the spine, or injuries which are unusually painful, where the suffering is out of all proportion to the injury inflicted, indicating clearly that there has been se-

vere injury to the nerve ending. *Hypericum* is the remedy for more than punctured wounds. I always use *Ledum* in the 30 and have never had a case that I remember where the patient stepped on a nail had any difficulty afterward. It may have been because the nail was made antiseptic before the patient stepped on it! After all, we cannot prove these things. If *Ledum* fails in these cases, do not forget nitric acid, and please do not give it in the mother tincture. It is apt to disagree and you might not have proper results. Talking about styes, I would rather speak of the great prophylactic, *Pulsatilla*, which has been a remedy used from the time of Hahnemann, and is still the routine standby. I want to refer to eyestrain. Eyestrain is the cause of styes in 19 cases out of 20. I stand here to be challenged on that question. Be sure you are right if you challenge me. Iodide of Baryta, of course, has been given in the 2d decimal trituration for quinsy. I have used Baryta carb. as a prophylactic to persons who often have attacks of quinsy. I use it in the 30 potency, and give it on discs two or three times a day continually, and my results have been such that I want nothing else, because when people get quinsy every two or three weeks from the beginning of Fall to the 4th of July, and do that year after year, and you give Baryta carb., you then have the law of probability. The law of probability is the only thing you have anyhow in these cases. Dr. Mohr may have given people *Belladonna* and they did not get scarlet fever and the *Belladonna* had nothing to do with it. The law of probability is that *Belladonna* had an inhibitive influence on the germ, or whatever the infective principle is that causes the disease, and the result was that the people did not get it.

DR. MIDDLETON: I am much pleased with Dr. Guernsey's paper and can confirm many of his statements, especially in regard to the prophylactic virtues of *belladonna* in scarlet fever. I have regarded three remedies as prophylactic against scarlet fever, *belladonna* for the old-fashioned Sydenham, smooth shining variety; *Rhus Tox* and *Anacardium* for the Miliary forms where there is excessive itching and roughness of the skin—just as red as the other variety, but of a different character. I also have another remedy for tonsilitis. Many people who are getting sore throat will come to you promptly, even though accustomed to

have quinsy from time to time, when there is a *sticking sensation and a fishy taste*. I have recommended a good many of my patients who are predisposed to quinsy to take a little piece of saltpeter about the size of a grain of chicken corn, put it in the mouth and let it trickle down the throat. That has proved apparently, "with the law of probability" in my favor, a prophylactic against quinsy.

DR. CARMICHAEL: I would like to add two remedies, one in colds. Somebody has said if you get a patient thoroughly chilled, at the very beginning of a cold, give them Camphor Mono-bromide in the first decimal trituration. I tried that and found it very efficacious, giving about five or seven grains. Another remedy is *cocculus indicus* for car-sickness. I made a little reputation by using that in the third decimal dilution.

DR. LONGWELL: There is one remedy I want to add for the prevention of quinsy, that is cold water. If anyone subject to quinsy will bathe the neck and chest as far as exposed to the weather every morning with cold water, he will never suffer from quinsy. That is from my own personal experience, because I had it about four times a year, and simply used cold water every morning, applied to the neck and chest, and have not had quinsy in six years.

ACUTE NEPHRITIS AS A COMPLICATION OF ERUPTIVE FEVERS.

BY WILLIAM A. GEOHEGAN, M.D., CINCINNATI, O.

Professor of the Practice of Medicine, Pulte Medical College.

(Read before American Institute of Homœopathy, June, 1904.)

THE following propositions are presented tentatively:

First.—The so-called active congestion of the kidneys occurring during the course of eruptive and other infectious fevers is in reality a true nephritis.

Second.—Nephritis, generally recognized as a sequel of many infectious diseases, is continuous with, though probably an acute exacerbation of, the pathological process first manifested during the eruptive or febrile stage.

Third.—While nephritis more frequently persists after scar-

let fever than any other eruptive or infectious disease, the importance of smallpox and measles as ætiological factors has been underestimated.

Fourth.—A clinical recovery from nephritis as a complication of eruptive fevers is more frequent than a perfect restoration of the normal structure. Many cases of so-called physiological albuminuria and Bright's disease developing in later life are in reality sequelæ of infectious diseases.

Fifth.—The management of eruptive fevers should be conducted with a view to minimizing the nephritis almost certainly present.

Classifications of renal diseases based upon clinical manifestations alone, or upon the pathological conditions believed to be present, have proved unsatisfactory and often misleading. The correlation of symptoms and morbid anatomy is always a difficult task. In diseases of the kidneys it seems well-nigh impossible. This necessitates the adoption of provisional hypotheses as guides to the examination of data now at hand, and to give direction to future observations and conclusions. While the unity and continuity of acute congestion of the kidneys and true nephritis seems probable, a large number of observations will be necessary before it can be considered proven. Laboratory methods must be systematically applied to the examination of the urine in every case of eruptive fever, mild as well as severe; all data must be carefully recorded; and the subsequent history of patients traced to determine the relative frequency of nephritis. For obvious reasons this work can only be performed by the general practitioner. To plead for such study upon the part of the profession at large is the principal object of this paper. I do not hesitate to predict that the results would startle the medical world and add another urgent reason for rigid measures in the prophylaxis of infectious diseases.

Of the eruptive fevers, scarlatina is the most productive of renal disorders. Its relationship may therefore serve as a text. Two forms of albuminuria resulting from this affection are generally recognized.

First, acute or active congestion of the kidneys, the transitory nephritis of the French, first manifested during the height of the disease and declining with it. Second, acute nephritis,

declaring itself as a sequel two or three weeks after the disappearance of the eruption. Is the one process distinct from and independent of the other?

In expressing our views we find much difficulty on account of the varying conceptions of the inflammatory process in general. If we accept it as a condition typically manifested by such obvious symptoms as heat, redness, swelling and pain, we take no note of the minor modifications of function and structure which antedate them. In fact, these changes may exist for long periods of time without any symptoms perceptible to the patient or appreciable by ordinary examinations upon the part of the physician. In the broader sense, inflammation has been defined as "the series of changes constituting the local manifestation of the attempt at repair of injury to a part." The "injury" is as often due to the action of a poison as to traumatism. The "attempt at repair" is rarely entirely successful, and there usually remains some alteration of normal structure, which may or may not be sufficient to produce appreciable disturbances of functions. At any rate, it leaves a point of lessened resistance to morbid influences.

It is conceded by physiologists that the glomeruli of the kidneys are principally concerned in the filtration from the blood of a portion of its fluids holding in solution sodium chloride. The epithelium of the tubules excretes or permits the passage of excrementitious substances. This process is partially an active elimination by the epithelial cells, but to a considerable degree it is passive or osmotic, there being a molecular interchange of the chloride of sodium for urea and allied substances.

In health the blood always contains toxins, chiefly the product of retrograde metabolism, but also resulting from bacterial activity within the body, especially in the gastro-intestinal tract. A ten-fold increase in this toxicity would be incompatible with the life of the cells of the organism. The elimination of these poisons is principally performed by the kidneys. In the process of evolution the renal epithelial cells have acquired a tolerance for such toxic excrementitious substances as are formed within the ordinary variations of health. Normally, some degeneration and exfoliation of these cells occur as from all other secreting surfaces of the body. A slight additional

toxicity increases these processes, but still within the regenerative powers of the organ; hence there is no marked disturbance of function and no escape of albumin is permitted. Degeneration and desquamation of this character has been noted by Mitchell and others in jaundice, the urine being loaded with epithelial debris and tube-casts yet free from albumin and with only a slight tendency to subsequent nephritis. In all febrile processes of infectious origin, the end products of metabolism are abnormally great, and to them is added the toxins produced by the germs of the disease. There results a parenchymatous degeneration of all of the viscera of the body. The kidneys in their efforts to eliminate the toxins and sometimes the germs suffer more than any other organs. The glomeruli and the epithelial cells of the tubules are overtaxed sufficiently to seriously impair or destroy their vitality. The altered epithelium is exfoliated and washed out of the tubules by the urine forming a considerable portion of its sediment. An intensification of the process causes exudation of fibrinous material which coagulates into casts of the tubules. Embedded in this exudate as a matrix may be found epithelial cells and blood-corpuscles. After desquamation of the cells of the tubules, possibly before, an escape of albumin from the vessels is permitted. In the large proportion of cases all of these phenomena diminish as the fever and toxæmia decrease, and the blood and albumin and the excess of cellular elements disappear from the urine after varying periods of time. There is another class of cases in which convalescence is interrupted by the classical symptoms of acute nephritis. Are the two processes really distinct?

Enough has been said to show the difficulty or impossibility of fixing any hard and fast lines between them. Delafield says that in scarlet fever the rule is that acute degenerations come in the early days of the disease; acute exudations in the later days, and acute productive or interstitial inflammation just after its close. Then, he pertinently asks, are these various forms of nephritis due to three different toxins? or to the same toxin at different stages of its action? or to different dosage of the same virus? To say the least, it is unnecessary to assume the existence of more than one toxin, for the sequence of phenomena is that which might be expected from a prolonged action of the same

irritant. Adami, in his masterly article on inflammation, cites Charrin as having shown that the bacillus pyocaneus and its products are capable of inducing in the kidneys pathological conditions so different as acute and chronic parenchymatous, interstitial and thrombotic nephritis, changes comparable with the diverse conditions of the kidneys in the human being brought about by the scarlatinal virus. It is well known that cantharis, turpentine and similar poisons may cause either acute congestion or nephritis according to the quantity taken.

In view of the facts cited it is certainly reasonable to assume the unity of the morbid process, and there is much evidence to indicate its direct continuity. Competent observers have found albuminuria persisting for many days during convalescence from scarlatina of average intensity. Some go so far as to doubt if any case of scarlet fever is entirely free from albuminuria at all times in the month following its active stage. Often it is evanescent and likely to be overlooked unless repeatedly sought for, or, better still, the urine for entire days examined. Arnaud found minute traces of albumin after convalescence in 75 per cent. of his cases of smallpox. These observations and many others of similar character indicate that the kidneys are not perfectly restored for a considerable length of time after the cessation of eruptive fevers. They favor the probability that many apparently acute attacks of nephritis are in reality exacerbations from colds, exposure, or dietetic errors of the pathological condition persisting from the eruptive stage.

Of course, the frequency of these lesions varies in different diseases and in different epidemics of the same affection. Out of 86 cases of nephritis, occurring between the ages of 2 and 12 years, Dickinson gives the supposed cause as scarlet fever in 75, measles in 3, and other diseases in 8, smallpox not being mentioned at all. This fairly states the relative frequency with which scarlet fever causes nephritis, and indicates a special irritant action of its virus upon the kidneys. The toxin, however, may not be the only causative factor, for it must be borne in mind that the time of greatest frequency of nephritis in scarlatina is coincident with the stage of desquamation.

Authorities agree that measles rarely causes renal disease. Some recognize nephritis as a complication of the so-called typhoid type of measles, with arrested development of the erup-

tion and profound nervous disturbances due to toxæmia, as convulsions, delirium or coma. An epidemic of measles of very severe type visited Cincinnati during the past winter and afforded unusual opportunities for the study of the renal complications. About 60 per cent. of the cases under my care caused albuminuria, and in fully one-half of these tube-casts were found. The albuminuria disappeared during the second week. Cases with an eruption of the hæmorrhagic type all showed albumin in the urine. Broncho-pneumonia as a complication of measles increases the tendency to renal disease. I have now under treatment a well-marked case of subacute parenchymatous nephritis directly traceable to an attack of measles five months ago. Both the quantity of albumin and the number of tube-casts are diminishing.

Welch's report of cases of smallpox in the Philadelphia Hospital for Infectious Diseases revealed albuminuria in 65 per cent. and tube-casts in 45 per cent. of cases of that disease.

Even rubella has been immediately followed by true nephritis.

In a large proportion of cases the renal disorders of infectious diseases terminate in a clinical recovery within a month, but the questions arise, does there remain pathological changes, and if so what is their subsequent history?

Three types of nephritis are recognized. First, parenchymatous nephritis, in which the secreting portion of the gland is principally affected. Second, productive or interstitial nephritis, in which the connective tissue is greatly increased. Third, diffuse nephritis, in which both kinds of tissue are about equally involved. Both forms of lesion exist in every case; it is the dominant one which furnishes the designation.

Epithelium degenerated and desquamated in the course of parenchymatous inflammations may be at least partially replaced. Even if this does not occur, or if a considerable number of glomeruli be permanently incapacitated, sufficient renal structure may be unaffected to perform the functions of the organs. New connective tissue, when deposited to replace diseased parenchyma, or as a result of more or less prolonged irritation, is rarely if ever absorbed. As a rule it undergoes subsequent contraction, permanently altering the adjacent structure of the organ. In many cases this pathological change is

slight and does not progress so as to produce serious functional disturbance. Two problems are to be considered. First, does this change predispose to subsequent nephritis, especially the secondary chronic interstitial variety, the origin of which is often involved in so much obscurity? Second, is it not possible that many cases of the so-called functional or physiological albuminuria are due to impairment of kidney structure resulting from an attack of some infectious disease? My own observations favor this view, but much evidence will be required before this relationship can be established. The same is true as to the continuity of acute nephritis and the generally recognized acute congestion of the kidneys, but the case presented is sufficiently strong as to merit investigation. Either proof or disproof of the tentative propositions presented will assist in clearing the mist of doubt which surrounds the whole subject.

To many, the questions involved may seem almost purely theoretical. This, I think, is far from the truth. Let no physician be too positive that his whole duty has been performed because few of his cases of eruptive fevers have developed acute nephritis during convalescence or shortly thereafter. Recovery was formerly considered the rule in women who survived the seizures of puerperal eclampsia. A more careful study has shown that a very considerable proportion of those who have apparently recovered die of nephritis within 10 years. The proportion of cases of Bright's disease in the first 30 years of life that is due to eruptive fevers is much greater than generally believed. Many of them could have been and ought to have been prevented. In every case of infectious disease the urine ought to be examined frequently, until by chemical and microscopic tests it is shown to be perfectly normal. The physician who so studies his cases will find many valuable indications for their management. Albumin may be absent from the urine of one convalescent from scarlet fever while he remains in bed, but appear as soon as he begins to exercise, or if an excess of nitrogenous food be taken. Prolonged heat of the sun or a cold bath may cause the appearance of albumin and tube-casts. While this albuminuria is transitory it indicates the susceptibility of the patient to many influences. Undue exposure would almost certainly lead to a pronounced form of acute nephritis in such cases.

A discussion of the treatment of nephritis is beyond the purposes of this paper. If it awakens a keener realization of the ever present danger of renal complication in every case of eruptive fevers, its mission will be fulfilled.

PROPHYLAXIS OF THE EYES OF THE NEWBORN INFANT.

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(Read before the Germantown Homœopathic Medical Society, July 18, 1904.)

PRIMARILY, the function of the physician was to cure disease; but of late years there has devolved upon him the additional duty of preventing disease; so that the medical profession of to-day concerns itself not only in treatment, but, as well, in prophylaxis.

The search after the cause of disease is essentially an effort to establish a means for limiting the operations of that cause, and finally to eradicate it altogether.

Within the memory of some of us, there has been worked out nearly the whole of our present-day knowledge of disease-causation and prevention, and what a stupendous array of facts there has accumulated in the last quarter century!

Humanity has been wonderfully benefited by the knowledge thus gained. Were people not so perverse and insistent on having their own way, regardless of warnings and pleadings, and even of law itself, medical science has so far advanced as to warrant us in assuming that with a competent constabulary, having power to enforce such rules of conduct as may be fixed upon, any community so governed could in time be made absolutely sanitary. All disease would be wiped out, and sound health be the part of each individual.

One of the sad things to witness is blindness from whatever cause. Perhaps we do not devote as much thought to this matter as we would were we ourselves blind, or were one of our own family afflicted in this manner. Of late years, however, the attention of the medical profession has been closely directed to a consideration of the causes of blindness, especially in the young infant.

This paper is written with the purpose in view of assisting in reducing to a minimum the number of infants who, through some preventable cause during, or shortly after, birth, have one or both of their eyes become diseased with consequent interference with vision.

Ophthalmia neonatorum, or the purulent ophthalmia of the newborn, is responsible for a very large percentage of blindness in the human race; and yet, judging from experience, it is one of the last things the average accoucheur bears in mind while in attendance upon a case of labor.

Williams quotes Cohn as estimating that, in 1876, 30 per cent. of the patients in the blind asylums of Germany, Austria, Holland and Switzerland owed their trouble to ophthalmia neonatorum.

Not long ago a professional acquaintance was mortified at the occurrence of this disease in the eyes of an infant born under his professional care, one of the eyes becoming blind in spite of every possible attention given it by the eye specialist whom he called in to treat it. In this instance, no more than ordinary thought had been given to the possibility of an infection of the eyes, and when the disease appeared it was too late to mend the error of omission.

No reflection upon the professional conduct of the physician is here intended, because there are few of us who have not had experience with the disease, and any condemnation we fasten upon others in this respect we ourselves must likewise assume, sooner or later, if we do not bear in mind and eternally practice in this as well as all things, the precept, "a stitch in time saves nine."

The disease is an infectious disease of the conjunctiva, palpebral and bulbar, with great swelling due to infiltration, and profuse discharge of a deeply yellow contagious fluid, soon changing to pus. If the disease extends beyond these confines, the cornea becomes involved with the formation of ulcers. If the disease mends, there are consequent corneal haziness and cicatrices; if the disease progresses, there is consequent perforation into the anterior chamber, with the formation of cataract.

Traced back to its original cause, much of the blindness of to-day is thus explained. It has become fairly well established

that purulent ophthalmia in the newborn is usually gonorrhœal in its character, and that the cause resides in the maternal discharges. Cultures have repeatedly demonstrated in the discharge from the eye, the *gonococcus of Neiser*, and when the parturient canal has been coincidentally investigated, the same germ has been isolated,—thus establishing the correlation of the disease in the infant's eyes with the disease in the mother. Any purulent maternal uterine or vaginal discharge may be responsible for sore eyes in the infant; that some of the milder forms of the disease are thus caused is altogether probable; but it may be safely assumed that, in the severe forms of ophthalmia neonatorum, gonorrhœa is the cause.

Rotch states that 95 per cent. of all cases of ophthalmia neonatorum are caused by infectious material from the genito-urinary tract of the mother, the majority being from gonorrhœal pus. The remainder of the cases are from trauma, exposure to light and cold, etc.

Atland cites a case of an infant with ophthalmia neonatorum developing on the third day which developed polyarthritides on the eleventh day, the exudate from which contained gonococci.

Greenouw found that in inflammation of the eyes of the newborn the disease was due, in the catarrhal as well as in the blenorrhœic form, to a variety of micro-organisms, among which are the gonococcus, streptococcus pyogenes, colon bacillus and yellow staphylococcus. Damage to the cornea is usually from the gonorrhœal form,—rarely from the others.

While in this paper special stress is laid upon the specific origin of ophthalmia, we do not fail to recognize other germs as being occasional responsible excitants. Nedden reports a case with typical symptoms due not to the gonococcus, but to the pseudo-bacillus of influenza.

Gonorrhœa in the female may remain latent a long time in the Fallopian tubes, though the virility of the gonococcus germ may have been somewhat altered, and all evidence of the disease may have disappeared from the vagina.

The sources of infection may be intrauterine, the gonococcus having penetrated that far and found lodgment until the active forces of labor have disturbed it and rendered fetal infection possible. The uterine walls or tissues of the cervix may be responsible for the infection, but a pyosalpinx of purulent form

may by leakage be the origin of a discharge which bathes the uterine cavity and makes possible, mostly through the traumatism of slow or instrumental labor, the lodgment of gonorrhœal or other pus germs in the fœtal eyes. After calling attention to prenatal infection of the eyes, Stephenson refers to the possibility of exciting inflammation by traumatism,—such as unnecessary rubbing of the eyes. He states further that 10 per cent. of children afflicted with this disease lose their eyes. These are causes which, however, we cannot always be expected to positively diagnose prior to labor. Even if these conditions in the pregnant woman are known or suspected, caution at the time of labor is perhaps the only means at our command by which to avoid infection. It is in the gonorrhœal and other suppurative lesions of the vulva, urethra, vagina, cervix and endometrium that resides the most frequent and positive cause of infection, and it is to these the accoucheur should closely give his attention.

Married women should be encouraged to engage their obstetric attendant in the early months of pregnancy. The distress occasioned by emesis gravidarum sometimes urges her to seek medical advice; but this is so frequently taken as a matter of fact by the woman that the physician is often consulted only in the later months. It not infrequently happens that the physician's knowledge of his patient is gained only at the bedside of labor, and conditions there stare him in the face which he should have known months before.

Routine pelvimetry in the early months of pregnancy is wisely urged as necessary, and failure to practice it has resulted in considerable maternal and fœtal mortality. Just as necessary—indeed, more necessary—is it to fortify one's self against such a dread disease as that under consideration, by an early and rigid inquiry into the conditions prevailing around and about the parturient canal. The fœtus should have claims for not only a safe mechanical, but also a clean transit into the world; and if by our negligence we permit that transit to be unclean we have failed in our duty. The prospective mother owes it to her forthcoming child to place herself unreservedly in the care of the physician who, in turn, will proceed to acquaint himself with all the conditions of his patient likely to affect either herself when in the parturient act, or her infant while being born.

Women are growing more and more appreciative of the inquiries of the scientific obstetric attendant, and there are only a few who will demur to investigations as to her condition, especially if it relates to the well-being of her child.

Without condemnation of husbands in general, if the popular view is correct that most young men have had gonorrhœa, or, rather, if the *dictum* of Ricord can be now made applicable that "800 men in 1000 have had gonorrhœa," that "gonorrhœa in 90 per cent. of cases remains uncured," or that "of every hundred women who have married men formerly afflicted by gonorrhœa hardly ten remain well, the others being afflicted by some such ailment as pyosalpinx, etc.,"—if such conclusions now maintain in a degree anywhere approaching the *dictum* of Ricord, we are furnished with enough reason for carefully investigating every pregnant woman for such lesions as, in the first place, may be responsible for puerperal febrile disturbances; and, in the second place, may be responsible for conjunctival infection in the newborn.

It may not be too great a digression to refer to the inability to determine definitely in many instances the cause of puerperal fever, and we are apt to ascribe the disease to soiled fingers of attendants, to unclean instruments, etc., when the cause may have resided within the woman, and the infection may have occurred as an "auto-infection," and, therefore, not immediately extraneous,—such as from an old pyosalpinx, from endometritis, metritis, purulent Skene's ducts, and vulvo-vaginal glands, etc.

Sometimes, the obstetric attendant will be cognizant of the fact that the husband has had gonorrhœa, or even that the wife has had it, and that now one or the other has more or less active evidence of the disease. This would be very positive reason for an investigation of the woman's condition; but, in other instances, such an examination should come as a routine matter, and as there are two principal sources of infection possible in the pregnant woman, which are open to easy inspection, they can be investigated without much difficulty.

These two sources reside in the glands situated at the mouth of the urethra,—Skene's glands, and the glands at the lower portion of the vulva,—the vulvo-vaginal glands. If the disease is acute, of course the symptoms are obvious; and yet, leucor-

rhœa is so often considered a common, and perhaps necessary, accompaniment of pregnancy, that close inquiry as to its cause is more often passed by than it is instituted. Many pregnant women go through the stages of an acute gonorrhœa without its nature being suspected or diagnosed.

If the disease is acute, the symptoms and appearance of the parts will reveal its nature. The green discharge, swollen vulvæ, etc., are quite suggestive of its nature. But only occasionally will the acute form be present in pregnant women, and we have then to deal mostly with the chronic or latent form of the disease.

The vaginal mucous membrane rarely perpetuates the disease. Small discharging cysts near the cervico-vaginal junction sometimes exist, and may be traced by the action of hydrogen peroxide.

The bladder and urethra rarely present evidences of the prolonged form, the mucous membrane of the female bladder and urethra being somewhat immune against gonococcal invasion. Fistulæ—vesico-vaginal and recto-vaginal—may be gonorrhœal, one case of each of these having come under the writer's notice. It is mostly with the vulvo-vaginal glands and Skene's ducts that we have to do in our examination, for, if we can demonstrate these glands to be free from suppurative processes, the woman may be regarded as free from any strong suspicion of infective centres in her genito-urinary tract.

The bladder may be the seat of a purulent cystitis, which the symptoms and a urinary examination will demonstrate. As every pregnant woman should have her urine examined twice a month, cystic complications will usually be promptly detected. Pus in the urine should always be carefully searched for and its significance traced.

Abscesses, acute or chronic, and fistulæ in the vulva are generally easily detected. Difficulty occurs in detecting suppurative foci in Skene's glands and in the vulvo-vaginal glands, when the chronicity is such as to have reduced their obviousness to a minimum. If the disease is acute, their swollen and red condition will be apparent, and diagnosis is easy; in the chronic form detection is more difficult.

Skene's ducts are situated within the meatus of the female urethra. They are virtually glandular tubules, and are de-

scribed by Skene to extend "from the meatus urinarius upward from $\frac{1}{8}$ to $\frac{3}{8}$ of an inch, running parallel with the long axis of the canal." The orifices are sometimes minute, but may be readily perceived if the ducts are swollen by inflammation, such as follows infection.

The labiae of the urethral meatus usually hide these orifices, so that in examination it is sometimes necessary to retract the urethral lips or dilate the meatus, which can be readily done by the aid of the round ends of two hair-pins inserted into the urethra, or by a urethral speculum, the openings of the tubules presenting in the fenestræ. For all practical purposes, if this method will not reveal disease of the tubules, they may be regarded as healthy.

If they are infected, "milking" of the ducts may easily be performed by the finger in the vagina being pressed against the urethra and stroked forward toward the meatus. If pus is seen to exude from the orifices, disease of the tubules is assured.

The vulvo-vaginal glands are situated one on each side of the lower borders of the vagina. Their orifices are usually readily seen, and if normal present no undue redness or swelling. The ducts are about 2 centimeters long, and lead back to the glands themselves, which are about 15 to 20 millimeters in length.

These ducts and glands, together with Skene's ducts, often remain diseased when all other evidence of the genito-urinary infection has long ago disappeared. The vulvo-vaginal glands, by reason of their situation, become readily diseased in gonorrhea. Skene's ducts, however, may not be involved for several weeks or months following exposure. Disease in each may continue for weeks and months, and even for years, infecting those making themselves liable to it, and being fruitful sources of reinfection to the woman herself.

If the ducts of the vulvo-vaginal glands contain pus, it can be seen to exude, often on simple exposure under examination. It may be necessary to milk the ducts or press the glands and ducts forward from behind the labiae. The natural secretion of the glands is mucoid, and if there is any tendency toward a milky character suspicion should thereby be aroused as to its infective character. Abscess of the gland is, by its prominent

swelling, obvious to the observer. Prolonged infection of Bartholin's glands is usually marked by ectropion and turgescence of the mucous tissue of the meatus of the duct, which condition should always arouse suspicion.

Examination of the discharge can be very readily made by taking spreads on cover-slips. The usual bacteriological examination for gonococci will determine the presence or absence of that germ.

The rectum should come in for at least a cursory examination. Gonorrhœal proctitis may be present, and under the plea of examination for piles the patient may be told to bear down, thus everting the anal mucosa. Any undue discharge can be noted and, if necessary, examined.

The examination of Skene's ducts, of the vulvo-vaginal glands, and of the rectum, need take only a few minutes; and to the experienced, if done in routine, may be practically accomplished at a glance.

The vaginal discharge constituting leucorrhœa may be investigated further by use of the vaginal speculum. The walls of the vagina near the cervix may contain infected retention cysts, which have spontaneously opened, but which continue to discharge pus. These are very delusive, as they are high up, and unless closely searched for escape detection. They are to be thought of if the search for suppurating foci is not successful.

Discharge from the cervix should, if normal, be mucoid. If it departs from this character, cervical and endometrical changes can be suspected.

Thus far, in a general way, attention has been drawn to the fact that *gonorrhœa,—acute or chronic,—usually the latter, is often responsible for infection of the eyes of the newborn, and that the cause resides in the mother, and should be discovered before the birth of her child.*

After discovery, treatment should be instituted. Skene's ducts should be drained, and local applications made to their interior to destroy all suppuration. The vulvo-vaginal glands should be similarly treated; and if the glands are abscessed they should be laid open and excised. Discharging cysts should be curetted and cauterized, and fistulæ cured by operation or otherwise.

If there is cervical disease, the existence of pregnancy does

not contraindicate treatment. The use of local applications and of a medicated tampon is often very grateful to the comfort of the patient, and, in addition, tends to cure her of a complaint she is always glad to overcome.

In short, when the time for labor arrives, the woman, if infected, should have been so prepared for the ordeal that the child may be guaranteed a clean as well as a safe transit into the world.

To Credé, in Leipzig, we owe much of our present efforts at protecting the eyes of the newborn. At the lying-in asylum with which he was connected he found that 10.8 per cent. of infants born there had conjunctivitis neonatorum. By the exercise of care in the birth, and the immediate installation of nitrate of silver into the conjunctival sacs of the infant, he reduced the number of cases of eye infection from 10.8 to 0.2 per cent. Credé's practice was to instil into each eye after birth one drop of a 1-per-cent. solution of silver nitrate, afterward neutralized and washed out by solution. This was a victory for prophylaxis, and the Credé method of eye protection is now universally recognized as eminently efficient, if correctly practiced.

Williams advises the Credé method to be employed as a routine practice in lying-in institutions; but in private practice advises the use of boric acid solution instead. He furnishes no adequate reason for substituting for a good method in the hospital an inferior method in private practice. He surely could not believe that with ordinary care the Credé method could not be practiced outside of, as well as within, the hospital.

Williams states that in "5222 children treated with silver nitrate Zweifel observed ophthalmia in only 0.23 of 1 per cent. and that no case ended in blindness."

Hoab, quoted by Williams, reduced the percentage of ophthalmia from 9 to 1 by the employment of the Credé method.

Fuch records the statement that, "in the Asylums for the Blind of Germany and Austria, those who are rendered blind by blenorrhœa neonatorum form more than a third part of the whole number," and that "those who are rendered blind in this way certainly constitute more than the tenth part of all living blind persons." The number of the blind in Europe is reckoned at more than 300,000. If blindness from this disease

could be prevented, this would make 30,000 less blind people in Europe alone.

Appalled at the enormous percentage of ophthalmia, Credé instituted the nitrate of silver treatment. This salt seems to have a specific action on the gonococcus germ; perhaps by its escharotic effect it destroys the vitality of the superficial epithelial layer and causes their exfoliation, in this way reaching the germs.

The Credé plan of prophylaxis is immediately after birth to cleanse the eyes and neighboring portions of the face of all discharge; especially the *vernix caseosa*, and then to instil a solution of nitrate of silver into the conjunctival sac in such a way that all portions of this membrane will be acted upon by the salt. Excess of the silver solution is washed away by boric acid solution. The results of this treatment have been such as to justify its employment not only in suspicious cases, but as well in every case of the newborn.

Some obstetricians and ophthalmologists advise against the routine adoption of the Credé method as being unnecessary except in suspicious cases,—that among the better class it is not so necessary as among the poorer; that there is a chance for harm if used in the eyes of infants innocent of infection.

Experience has not justified this conservatism; rather, proof is too often furnished of ophthalmia presenting itself where and when least suspected. The disease is not confined to any one class in the community, and those who have to do with the so-called "social set" will have had the experience of more than an occasional maternal lesion of gonorrhœal origin.

After referring to the extent to which gonorrhœa is responsible, not alone for "race suicide," but also for disease in women, and for blindness in the child, Grandin, in a recent article, states "that it is a fact familiar to all, that were it not for the operative work derivable from abdominal sections performed for disease of the uterine adnexa due to gonorrhœa, 60 per cent. of this work would be uncalled for." Inasmuch as sections for tubal disease performed by gynæcologists are not confined to any particular class, it is more than inference to assume that the so-called better classes must take their share of inclusion in the list of those who, for the sake of due precaution, must be under suspicion. Hence it would seem wise to

adopt a method which, while having no harmful feature attached to it, has everything protective and abortive.

The better classes are apt to be more cleanly, but they are not much freer than are the others from genito-urinary infection; and while the finger of suspicion should not be pointed toward every pregnant woman, yet for the sake of the possibilities—if not of the probabilities—prophylaxis should be practiced on all.

A case of sudden death from eclampsia—probably of uræmic origin—recently occurred in a lady whom we casually knew. The physician did not think it necessary, even in the presence of general anasarca, to examine the urine as a part even of routine procedure; but the woman's sudden death brought the family and medical attendant to a sudden realization that if precaution had been exercised this loss of two lives might not have happened.

Routine precaution is the "stitch in time,"—is the "undoing of the thing before it happens,"—is the protection of the innocent from the ravages of disease-germs which, it is well to assume, are everywhere present until they can be proven absent.

In the light of present-day information on the subject for a man to assume that he can never get smallpox, and, therefore, need not be vaccinated, is to rank him as at least foolish; and for us to act on the basis that any woman we do not thoroughly know cannot have in her parturient canal the germs of a possible infecting agent is, to say the least, manifesting an optimistic confidence in human affairs not borne out by facts.

Even after a careful investigation of the maternal parts with negative results, the chance of an error of omission furnishes justification for the adoption of the Credé method, for it leaves but a small, if any, loophole through which infection can occur.

We herewith present for examination an outfit for the application of the Credé method to the eyes of the newborn, which we order to be purchased by every pregnant woman coming under our care. Sore eyes in the newborn are dreaded by all women, and it is surprising how well informed the average woman is becoming on this subject. She falls readily into the plan for prophylaxis, and as the outfit is not costly (35 cents),*

* The outfit is prepared and sold by a local pharmacist, and without any profit whatever to the writer of this paper.

no woman has thus far in our experience refused to obtain it.

Substituting an albuminate of silver for the nitrate of Credé, the outfit consists of a 2-dram vial of 10-per-cent. solution of the silver salt, and a 4-dram solution of boric acid, together with two eye-pipets, sterile absorbent cotton, and instructions for their use.

As soon as the child is born, while the nurse is busy holding her hand on the uterine fundus of the mother to secure contraction, and before the cord is cut,—it being wise to wait a few minutes for its circulation to cease,—the obstetrician cleanses his hands, or preferably his gloved hands, and proceeds to wipe all discharge from the eyes, which he can do with small mops of the absorbent cotton found with the outfit.

With one of the eye-droppers partly filled with the silver solution, one or two drops are put into the conjunctival sac of one eye, the lids being worked about to secure equal distribution of the solution throughout all portions of the conjunctiva.

This is best accomplished by using a small piece of cotton between the lids and the fingers to prevent the lids from slipping away from the fingers. The lachrymal duct should be milked out so that every opportunity for the intimate application of the silver solution will be afforded.

The silver solution should be in contact with the mucous membrane for at least a minute, when the excess can be wiped away with cotton; the other eye can then be similarly treated. With the other pipet filled with the boric acid solution, the eyes are to be washed out, and the silver stains removed from the lids and face.

In order not to lose time and unnecessarily soil the pipets, the outfit should have been previously gotten in order; *i. e.*, the corks should be removed and the pipets filled with the respective solutions; the pipets then being left in the bottles, which in turn can be left standing in the box.

It is best for the medical attendant to attend to this procedure, as the nurse at this time rarely has her hands aseptic and is busy with the patient.

Our deliveries are always made across-bed, and the baby is placed immediately after birth on a chair close to the bed, where we believe it can best be handled for all purposes.

After use of the solutions, the pipets can be emptied, cleaned and returned to the retainer. The nurse is directed to carefully flush the eyes three times a day with the boric acid solution, and to closely observe the condition of the inner canthus, where usually the first sign of inflammation appears.

The initial discharge in an infected eye is usually yellow, which is very plainly shown in contrast with the white of a pledget of absorbent cotton used to wipe out the inner canthus.

A not unprofitable part of our routine in the lying-in room is to remark casually, but in such a tone as to carry emphasis, that "if the eyes become sore either the doctor or the nurse is to be blamed,—but, of course, no well-trained nurse would blame the doctor!"

This remark does not appear to offend the nurse, no matter how sensitive she is, but rather serves to stimulate her to sedulousness. If the eyes escape infection, her's is a commendable pride, and we usually take care to thank her for her successful effort at prophylaxis.

This paper has been written, not to cover every possible point in the matter of infant-eye infection, but to include the subject in general terms along the line mostly of maternal causes, such as are apt to be neglected by reason of a somewhat natural confidence which comes to all of us, if our experience has not thus far brought us in contact with a case of ophthalmia neonatorum. One unfortunate instance, however, will make us wish we had exercised the caution herein advocated.

Infants are sometimes born with eyes already diseased. This will be discovered, if, while we are applying our Credé method, we make a careful examination of the conjunctiva and cornea. An eye already sore or blind had better be discovered immediately than later, when blame may be directed toward the attendant.

Infection may have occurred in utero and the disease be far advanced at birth. Under such circumstances, discovery will enable the physician, not only to institute appropriate treatment, but also to acquaint the family with a condition for which he can in nowise be held responsible.

Unassociated with maternal causes, infection may attack the eyes of the infant sometime after birth, as from neglect in nurs-

ing. This should be provided against by careful instruction to the nurse. A well-trained maternity nurse will commit malpractice if by her neglect eyes become sore; but if she carry out her training, the ordinary exercise of caution on the part of the physician will see to it that she does not forget to fulfil her every function as a nurse.

If the eyes become infected, treatment can be instituted with the solutions contained in the outfit; but sometimes a stronger solution than that of 10 per cent. of argyrol may be necessary—say 15 to 25 per cent.

Silver nitrate may be used instead of the albuminate, but our experience is, that because it is more powerful it is more apt to produce degenerative changes in the cornea. We advocate no special silver salt except as we may believe it to be preferable in securing the best average results.

In conclusion, we offer the following for consideration and discussion:

1. Much of the blindness in the human race is the result of inflammation in the eyes of the newborn.

2. The greater number of cases of inflammation in the eyes of the newborn are infectious.

3. This infection arises in great part from infected centres in the genito-urinary system of the mother.

4. Gonorrhœa in the mother, acute or chronic, constitutes a very large proportion of the infections in the eyes of the newborn.

5. Other germs may be responsible for these affections, but they produce a so-called catarrhal or mild form of ophthalmia.

6. The deep-seated ophthalmia which produces corneal sloughing and blindness is gonorrhœal.

7. Gonorrhœa in some of its forms is not an unusual affection in women, and not much the less so in pregnant women.

8. The gonococcus invades all parts of the genito-urinary organs of the woman, but it is more evident in the external parts,—the Skene's ducts and Bartholin's glands.

9. With such a large proportion of women manifesting gonorrhœal disease, every pregnant woman not thoroughly comprehended should come under the general suspicion and be made the subject of investigation,—that is to say, for the sake of the eyes of the fœtus the medical attendant should convince himself that the parturient parts are not infected.

10. As a prophylactic to be employed in all cases—especially in suspicious cases—the Credé method of installation of a silver salt solution in the eyes of the infant immediately after birth offers the greatest chance for success.

11. Proven to be of almost absolute certainty in its prophylactic property in hospital service, the plea is extended for the universal application of the Credé method in private practice.

12. In order that the means of practicing the Credé method may be ever at the bedside of the lying-in woman, an outfit designed to meet the needs of the treatment should be ordered with the usual obstetric packet.

13. The suggestions which we offer and which are confirmed by the practices of the best obstetricians will, if followed, very materially reduce the blindness in the world.

OPTIMISM VERSUS PESSIMISM IN THERAPEUTICS.

BY WILLIAM C. GOODNO, M.D., PHILADELPHIA.

(Read before the American Institute of Homœopathy, June, 1904.)

THE student of medicine and practitioners of little experience are frequently nonplussed by the diametrically opposed views of those having equally long experience and equal opportunities for observation respecting the value of some therapeutic measures. If they read at all extensively it is soon discovered that physicians are divided into two classes, the especial feature of one class being the development in its members of various degrees of hopefulness, or enthusiasm even, regarding efforts to relieve and cure disease, while the characteristic of the other class is conservatism combined with more or less of hopelessness. If one's mental horizon is broadened sufficiently to take in many departments of human activity the same differences of opinion are found to exist in each. If we limit our attention to any one well-established advance in therapeutics, some practice, for instance, which is as nearly universally accepted by the profession as any ever is, we shall find that it has passed through stages of lessening opposition up to its general employment. Numerous examples of this readily occur to each of you.

At the outset I will declare to you respecting my own point of view that I consider myself as tending to optimism, in the first place, because nature has seemingly so shaped me and, as a matter of principle, I endeavor to cultivate a healthy optimism, believing I shall thus best fulfil my ministry.

Since the medical profession has shaken off the not so ancient conception of disease as an evil entity, great strides in scientific knowledge relating both to the well and the sick have been made, and with this increasing information has developed increasing hopefulness and increasingly better results from the treatment of the sick. While much has been accomplished by the efforts of the physician to modify and promote recovery from disease and thus encourage him to a more hopeful spirit, we must not forget that the new view of disease which regards it, in many of its manifestations, as a beneficent process has led to less of active interference and accomplished as much for man negatively, as medicine has positively. Imperfect observation, based upon a lack of appreciation of this fact, has opened our pages and our practice to much of error. In the old days every disease manifestation was discovered only to be antagonized. Now we know the true value of fever, of inflammation, of vomiting and of pain, and sometimes favor rather than oppose them. The cessation of injurious practices and the consequent improvement in the results of treatment, especially during a certain important era in the development of medicine, has led to unwarranted conclusions regarding the value of medication, followed by a too optimistic period, from which we are but very gradually recovering. An optimism which closes our minds to the truth, when the truth is one we do not desire to become acquainted with, is unhealthy. It distorts us mentally. It is even more injurious than pessimism, for it builds creations of straw which possess no strength and which are misleading, as they stand for strength.

If we would study disease more successfully and treat it with better results many of us must free ourselves from certain traditional pathological theories. Personally, I have no sympathy with a still too prevalent general pathology which takes an unnecessarily strained view of disease, which views it as some mysterious inner disorder, no one knows what; which operates, the Lord only knows how, that which is appreciable, being the

result of disordered function and altered tissue. According to this doctrine, disease you do not or cannot know, only its ravages. The more recent additions to our knowledge of the causes of disease, especially the relation of micro-organisms and their product to disease processes, I think, goes far toward doing away with those visionary doctrines which have had only a pernicious influence upon medical thought and practice.

In order to give my paper a practical trend, which I think is always appreciated by practicing physicians, I should like to examine somewhat into the grounds of our faith, or want of faith, and consider what we are able to accomplish in the relief and cure of disease. As, of necessity, this review must be hasty, limited and imperfect, I will refer only to the treatment of one disease, pneumonia, a disease destroying the majority of old people, many younger ones, and which has been unusually prevalent and fatal of late.

If you expect me to start in with statistics you will be undoubtedly agreeably surprised. While statistics critically studied by an expert serve a valuable purpose, they only tell a part of the truth, and can be juggled so marvelously, and often unconsciously so, as to be entirely misleading. Much care also is required in the study of the statistics of pneumonia, as it is a disease varying much in severity according to antecedent and co-existing conditions of the patient and the character of the epidemic. Prior to the homœopathic era its treatment was heroic and believed to be quite efficient, but it undoubtedly caused a larger mortality than the disease itself, for in the wards of Drs. Caspar and Wurmb at the Leopoldstadt Hospital, Vienna, where homœopathy was put on trial in 1850, the mortality was decreased more than 50 per cent., at once, *i.e.*, by comparison with the cases treated by the old school at the same time and in the same hospital.

It is at once evident then that the greatest advance in the treatment of pneumonia, which has been made by the dominant school during the entire history of medicine occurred half a century ago, was of a negative character, and was made imperative by the new movement in therapeutics. If you should hesitate in accepting this statement, read the reports of Drs. Caspar, Wurmb and Eidherr, representing the homœopathic staff of the Leopoldstadt Hospital; also, from old school sources,

the work upon diseases of the chest by the late Wilson Fox, and a recent excellent clinical lecture by Sir Dyce Duckworth delivered at the London Hospital and published in the *British Medical Journal*, November 15, 1902. Viewed from the old-school standpoint the only notable change in treatment of pneumonia since the Viennese experience of fifty years since, which we have seen to have been due simply to the omission of injurious measures, has been the development of the so-called "supporting plan of treatment," associated, at times, with hydrotherapy. The supporting plan of treatment represents more attention to rest and feeding and tonic rather than depressing medication; and in respect to the value of this method we are forced to acknowledge that the mortality of the disease has steadily increased since 1850. If you will read, if you have not already done so, Duckworth's lecture referred to, you will learn that aside from this change to tonic treatment practically nothing has been added to their armamentarium for combating pneumonia in half a century.

Commencing at a period before Hahnemann's day and enumerating the items of treatment mentioned by prominent old-school authors from time to time we find Marshal Hall in his work upon practical medicine, dated 1839, mentioning blood-letting, tartrate of antimony, and the occasional use of ipecac, squills and lobelia; cupping, leeching, blisters, fomentations, cataplasms, and change of air.

Sir Thomas Watson writing just before the Vienna experience mentions bleeding, general and local; tartar emetic, counter-irritation, laxatives, opium occasionally. He advises to feed well and use stimulants.

Sir Dyce Duckworth, representing the treatment of to-day, considers rest, food, stimulants, and the rare use of opium; quinine, Hoffman's anodyne and saline laxatives; refrigeration by means of ice-cradle, etc.; musk, alcohol and strychnine as heart tonics; oxygen and bleeding rarely.

Some of us are hopeful that we may be on the eve of another marked advance in the therapeutics of pneumonia, and a careful survey of the question must lead us to the conclusion, I think, that this is only likely to result from some method of attacking directly the cause of the disease. Of course, our minds turn at once to the question of an anitoxin, but as yet a

successful antitoxin has not been developed. More has been accomplished by means of drugs possessing probable antitoxic power, at least this appears to be the most reasonable hypothesis respecting their action. We have some statistics upon this point, but they are as yet insufficient. It is necessary, therefore, to present limited individual experiences for consideration while we are awaiting accumulated experience. At the risk of proving tedious I will detail a little of my own experience. In stating my convictions respecting the favorable influence of these drugs I have considered as carefully as possible all of the conditions and circumstances relating to the cases in order to avoid deceiving myself or others. I have thought it best to report a few cases *in extenso*, rather than to summarize my experience, as more likely to convey useful information.

CASE I.—December 20, 1902, a gentleman 72 years of age, who had been in impaired health for a year previously, following upon an attack of influenza, complained one afternoon of chilliness and went out of doors for a little walk to "warm up," as he told his son. While out the chilliness developed into a marked rigor and it was with difficulty he reached home unaided. Dr. S. S. Stryker, a near neighbor, was hurriedly called in and worked with the patient for an hour before he was able to overcome the collapsic condition threatening immediate dissolution. All who have met collapse in an old person entering an infective disease will appreciate the danger this patient was in. The doctor could not decide positively what was the matter with his patient, but believed it to be a beginning pneumonia. Three hours later when I first saw the patient I found a temperature of 103° F., the pulse 100, the respirations 30. His mind was wandering and he complained of a little pain in his left side. Respiratory sounds over the left base were feeble and a few fine râles were heard during inspiration. It was clear at this hour that I had to deal with a typical pneumonic fever, the onset of which had nearly destroyed the old and feeble patient. As the pulse was still weak I continued a stimulant which had been prescribed and ordered a creosote-carbonate, minims x., every two hours. Upon the second day of the disease I saw the patient at 1 o'clock p.m., when the temperature was still 100° F., the respirations

28, the pulse 96. His mind was not yet entirely clear. The pain in his left side had increased sufficiently to be quite annoying. Physical examination showed some impairment of resonance and here and there well marked crepitant râles. Cough was slight and without expectoration. The result was thus far encouraging, but not quite what I had hoped for. The dose of the carbonate of creosote was increased from minims x. to minims xx., to be repeated every two hours, but giving at once a dose of minims xl.

Third day. Three o'clock P.M., temperature 101° F.; R. 24; P. 85. Pain practically gone, mind clear, wants food and does not quite understand what all the "fuss is about."

Fourth day. Temperature 99.2° F.; R. 18; P. 76. No symptoms causing any annoyance. Dulness over left lower lobe marked and associated with all the usual signs of consolidation. Convalescence was uninterrupted.

I am too well acquainted with the varying course of pneumonic fever to ask you to accept this case as one in which the disease was aborted by the use of a drug. But we have every reason to believe that the character of onset indicated a severe attack, and one seldom endured by a grip-enfeebled old man. I could relate the histories of a number of cases where I have had the good fortune to be able to institute the antitoxin treatment at a sufficiently early stage of the disease to secure the same prompt control.

It must never be forgotten in the employment of antitoxic methods that their early application is indispensable to favorable results. Most of the cases that we see in hospital practice and all we see in consultation have passed the stage for the most favorable action of antitoxic or antibacterial medication. I will illustrate this by a case seen with Dr. J. H. Closson, of Germantown. It occurred in a gentleman of about 56 years of age who had been practically well during recent years, but who had been suffering from a cold for several days previous to his attack, which was probably of influenzic character. I first saw him about sixty hours after a chill. He had well-marked consolidation of the right apex lobe. The respirations were 42, the temperature 104.6° F., the pulse 130, and the patient anxious. Tracheal and bronchial rattling was so loud as to be heard well over the second floor of a large double house, the doors of which were

open. It was such rattling as we hear frequently in the late stages of fatal cases. I may say that I believe I have never seen a case of pneumonia recover when râles of the character heard in this case were present. They are a veritable "death rattle," seeming to indicate respiratory paralysis preceding death. I gave an unfavorable prognosis, but suggested the trial of creosote carbonate. When I called the following day I could hardly credit my senses. The patient's appearance was bright, confident and cheery. He shook hands with us and congratulated us upon our successful treatment. The temperature was at this time 102.6° F.; R. 32; P. 120.

The following day, his condition being about the same, I did not visit him with Dr. Closson, but during the night there was a marked aggravation of symptoms, and when I saw him the next day, at 1.30 p.m., it had reached alarming proportions. The respirations were 60, P. 160, temp. 105.7° F. His laboring for breath was pitiful to behold, his anxiety was extreme and his surface cyanotic. The right heart was struggling violently and the aortic element of the second sound was almost extinct. Physical exploration revealed a new focus of consolidation in the left lower lobe. Camphor in oil was given hypodermatically and oxygen inhalations and brandy were ordered, but without good result, the patient dying at 3 o'clock. This was such a case as many clinicians still believe ought to be bled. Even our own Lilienthal advocated it. Is it possible that the measures employed might have been successful had we relieved the overwhelmed right heart, which was emptying itself less perfectly each hour, the residual blood increasing gradually in quantity until the greatly distended ventricle finally failed in diastole?

The most interesting clinical feature of this case was the apparent prompt control of the primary infection of the right lung, but its failure to prevent a later infection of the left lower lobe. This may appear to some of you as evidence to negative the probability that the drug had any influence whatever upon the case; but I cannot share in that opinion. So remarkable an improvement developing so rapidly and continuing so many hours in so serious a case does not suggest unaided nature as the cause. A rational explanation, and one supported by bacteriologic investigations, is about as follows:

Probably the bacterial colony attacking the left lung (the second focus) was already established when the creosote was first given, and that the creosote had, as employed at least, antitoxic, but not bactericidal, power; that it sufficed for the toxin developed by the first colony in the right apex, but was unable to meet successfully, as administered, the reinforcement of toxin from the second colony developed later in the left lung.

An athletic young man, 30 years of age, sustained an injury to his hip necessitating confinement to bed. For one week energetic treatment was administered to control the inflammatory action which assumed a character exciting a suspicion of rheumatism. Upon this hypothesis sodium salicylate, grains five, every two hours, was prescribed, as rhus, arnica, colchicine and other medicines had done no good. Just about this time, *i.e.*, the time of prescribing the salicylate, the temperature, which had been running a maximum of about 101° F., jumped to 103° F., and a slight cough and pain in the side appeared. The following day the physical signs of consolidation of the left base were present, but the temperature and all symptoms rapidly diminished and convalescence was uninterrupted. As the patient showed a rheumatic history some might argue that the pneumonia was of rheumatic origin, and therefore controlled by the salicylate, but opposed to this idea is the very important and now generally accepted fact that salicylates do not cure rheumatism. It is probable rather that salicylates, which have recently been used so extensively in pneumonia, act as antitoxic agents in relation to the product of the pneumococcus.

These cases have not been selected because they were peculiar in any way, but simply because two of them show the action of the two drugs most used for the purpose of controlling pneumonia, and one of them to illustrate the failure of the method.

A method I have not yet tested is that of Aufrecht, of Magdeburg, Alstadt, which consists of hypodermic injections of quinine hydrochlorate in quantities of one-half gram once or twice in the twenty-four hours. If any one desires to look up the subject consult the fourth volume of Nothnagel's *Encyclopædia*, the ablest work upon practical medicine which has yet issued from the press. The statistics of the hospital before and since the introduction of the quinine method are quite convin-

ing. This method must not be confounded with the very general use which has been made of quinine in the treatment of pneumonia and other infections. Given hypodermatically, in the dose indicated, it is believed to act as a parasiticide in its relation to the pneumococcus, as it does toward the hæmatozoon of malaria.

I have no doubt that some of you are saying to yourselves, what of the homœopathic treatment of pneumonia? While I did not start out to discuss that question, allow me to ask in passing, does the homœopathic method really accomplish the results we ascribe to it, or, to be more searching, can we prove at this time that it positively modifies the course of the disease? I have propounded this question to myself many times, and personally I believe that it does, but while the homœopathic remedy influences disordered function, surely no one believes that it meets the higher indication, in the treatment of infectious disease, of destroying or rendering inoperative disease germs and their irritating products. Being optimistic by nature and hopeful by preference, as I have stated to you, and having much confidence in the homœopathic treatment of pneumonia, I hope you will understand that I have asked this question simply in the spirit of scientific inquiry. We ought, indeed, we must, as a school of medicine, face any inquiry into this or any other therapeutic question. Most of us at least are searching out truth and not living to exploit any therapeutic method. I, like most of you, feel loyal to the school of medicine I am affiliated with, but no sense of loyalty to school must be allowed to blind us to truth, from whatever source it may come, for truth is irresistible and must ultimately prevail. All I desire is that we shall look into this matter frankly and searchingly, and if our results are as claimed demonstrate them in a satisfactory manner, *i.e.*, we must present the kind of evidence modern clinical medicine demands. Our neglect in this respect is well evidenced by the fact that the most valuable statistics we possess bearing upon the value of homœopathy in the treatment of pneumonic fever are those from the Vienna Hospital referred to which are now about a half century old.

The progress of science is forcing us to reconsider many questions in all departments of activity, but in none more frequently than in medicine, and in no department of medicine have

greater changes been noted than in that related to infectious disease. When we recall that pneumonia is the result of the action of a specific micro-organism and in its various forms probably to a variety of them, that these living organisms produce toxins which represent a definite quantity of poison for any given quantity of the toxin, and that the severity of the symptoms is dependent exactly upon the quantity and virulence of the poison present in the blood and tissues, and the resisting power of the patient, and that in fatal cases the injury done the patient is often earlier than we can discover it, what hope have we of any agent proving curative in the graver poisonings other than one capable of rendering the toxin rapidly harmless or eliminating it from the body freely and continuously enough to prevent dangerous concentration? I do not believe that any one qualified to express an opinion will claim that remedies prescribed homœopathically can accomplish this. Nor, until the present, has any claim been made by any one or any school regarding the power of any substance or method of treatment to accomplish this result. From the opposite standpoint of "fortifying the body" in some manner to better endure the attack of the poison, the way in which the homœopathic remedy must act, can we as homœopaths make positive claims? Many persons attacked by pneumonia are practically healthy at the time of the onset, and does it not therefore savor of imagination to talk of improving their nutritive activity or in some uncertainly determined manner improve the patient's state of health and thus enable him to better withstand the poison? It is even known to the laity that strong, healthy men make excellent targets for pneumonia. It would seem to me as rational to feed a person from day to day upon poisonous doses of some ordinary chemical while we attempt to improve his stand-off powers by means of minute quantities of some, often most uncertain, agent we call a remedy. I think we are forced to accept certain seemingly perfectly well established facts in relation to this subject of infectious diseases and their treatment, especially that they are due to specific micro-organisms generating poisons of chemical character which disorganize the blood and injure the tissues, and that the poison is being continually produced by the organisms which have obtained entrance to any foothold in the body; that relief can only come from elim-

ination of the toxin or its neutralization in the body; that any treatment which does not accomplish this is inefficient or modifies symptoms only. If the poison in any case is not eliminated or neutralized or the infection a very slight one, we live only because the infection is slight or because of the ability of the patient to endure the storm until the life history of the organism has been completed, *i.e.*, until it ceases to live and consequently to produce poison. It would be interesting to consider other infections than that of pneumonia, but it would require too lengthily a paper. The problem is practically the same with most, if not all, of them, and for this reason I am unable to understand the distinction made by Dr. Searle in his address before the King's County Medical Society, in which he stated, "In some of the zymoses, for example, in pneumonia, influenza and some others, we may cure our patient just as speedily and effectively as if their disease were not zymotic. But in others, as measles, scarlet fever, etc., we cannot shorten the life history of the malady, can guide and modify and palliate only."

My present position respecting the treatment of pneumonia I will summarize somewhat as follows: First: The homœopathic method is to the present time the most satisfactory method of treatment. Whether actually or apparently so has not been positively demonstrated. We can at least have the satisfaction in its employment of knowing that we are not doing damage, which cannot be with certainty said of some modern methods of treatment.

Discussing this paragraph I have to say, that while we all must accept the negative statement, the positive one, as to its value, is yet to be proven. I mean to the satisfaction of modern clinicians. This is in great measure because we do not yet know fully the uninfluenced course of the disease, unless we accept cases treated by extreme dilutions of drugs as such. Until we do obtain this knowledge from series of cases observed in different seasons and epidemics and under varying conditions, we lack a perfect standard for comparison. So far as I know this has never been tried upon an extended scale. It ought to be done, if for no other reason than to check the almost absurd confidence many doctors exhibit in the remedies they prescribe. With them, too often, every change is due to their medicine; every unfavorable development is the result

of their failure to properly select the remedy, or is an aggravation from their too well selected medicines. They are great men in their own estimation. Surprising as it may sound it can in truth be said that we need nothing more in this beginning of the 20th century than more positive knowledge regarding the uninfluenced course of disease.

Second: As the next great advance in the treatment of pneumonia will probably be in the direction of attacking its cause, it is our duty, whatever our views concerning therapeutics in general, to carefully investigate any measures looking to the desired end.

Commenting upon this assertion I will state that prejudice is the strongest barrier to this, and, perhaps, for appreciable if not good reasons, is especially developed among us. Young men who are taught that a special method they practice is based upon an eternal law of nature and that it will not fail in a curable or relievable case, if properly applied, are apt to come to look upon the system with feelings akin to religion, and to resent the idea that under any circumstances there may be a preferable plan of management. A notable characteristic of those who entertain this view is that they study little outside of therapeutics of the kind they have determined to believe in.

Third: That we have in the carbonate of creosote, salicylate of sodium, quinine hydrochlorate, etc., drugs which appear to possess antitoxic and antiparasitic powers, and that the published results of their employment in the treatment of pneumonia are such as to encourage investigation.

VEGETATING ENDOCARDITIS OF STAPHYLOCOCCIC ORIGIN, WITH FEVER OF AN INTERMITTENT TYPE. —Prof. Sicard, of Paris, at the same meeting reported the case of a woman of 42 years who, after a tonsilitis, became affected with an endocarditis with intermittent febrile attacks, the paroxysms of which ended fatally. Cultures of her blood, withdrawn during the febrile periods, were positive and revealed an abundance of the staphylococcus aureus; during the afebrile phases, on the contrary, they always were sterile. According to the writer, the staphylococcus is very frequently the cause of malignant endocarditis; like the streptococcus and the bacillus coli, it may give rise to an intermittent fever and bring about either lesions, which are exclusively vegetating or, on the other hand, wholly ulcerous. —*Ibidem*, No. 17, 1904.

PNEUMONIA AND PLEURISY IN CHILDHOOD.

(Read before the Homeopathic State Medical Society of Pennsylvania, September 21, 1904.)

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A NUMBER of interesting facts are brought to light by a comparison of the clinical course of pneumonia and pleurisy in children and in adults. The statistics as to the frequency, clinical course, ætiology, prognosis and diagnosis of these affections are points about which important distinctions and differences revolve.

Contrary to current belief, pneumonia is by no means rare in infancy. It is true that the bronchial, or catarrhal, type of pneumonia is by far more frequent than the croupous; but, nevertheless, the alert clinician encounters many a case of lobar-pneumonia, and, I may say, not rarely to his own surprise. Anyone who sees much of sick children soon becomes suspicious of a certain complex of symptoms and explores the lungs carefully under these circumstances for evidence of pneumonia.

Pleurisy as a primary condition is relatively common in adults—primary implying its independence from acute pulmonary inflammation. On the other hand, primary pleurisy is exceedingly uncommon in children. Here it is either associated with pneumonia (pleuro-pneumonia) or it develops as a sequence (metapneumonic pleurisy). Again, while the majority of pleurisies in adults are serous, in children they are usually purulent.

Let us first take up pneumonia. Statistics show that it is more frequent in children than in adults. Before the sixth month it is rare. Boys are more frequently attacked than girls.

The upper lobes are more often the seat of consolidation than in adults, the right being especially vulnerable on account of the greater size of the right bronchus, which allows micro-organisms to gain access here more readily than on the left

side. While the majority of cases are primary, still it may be associated with influenza, whooping-cough, meningitis, ileocolitis, nephritis, and some other conditions.

The pneumonia may be frank and present the classical symptoms of the disease. In place of the characteristic chill infants become cyanosed, the extremities cold, and there is pronounced systemic depression. Following this the temperature rises abruptly and remains steadily elevated or markedly remitting for from five to eight days, after which there is a sudden drop below normal (crisis). Naturally, we expect to find nervous symptoms, but these may be nothing more than drowsiness and prostration. The usual physical signs are present in the chest. Sometimes convulsions usher in the attack.

Such cases, in my own experience, are rather the exception. Certain deviations from the typical course of pneumonia belong especially to the period of childhood. While they are characteristic to a certain extent, still they really complicate matters by drawing our attention away from the chest and directing it to the abdomen and brain.

Cerebral symptoms are so prominent in some cases that we incline to regard them as meningitis until the crisis comes and with it a vanishing of all unfavorable symptoms. Again, marked distention of the abdomen, with or without diarrhoea, may draw our attention to the abdomen to the exclusion of the thorax where the chief trouble lies. Often the case simulates closely appendicitis.

A case typical of the first class was seen some time ago with a colleague who had attended a girl of 5 years for whooping-cough. The disease was in its third week, advancing uneventfully, when suddenly high fever and intense headache developed. Photophobia and rigidity of the neck muscles were associated. Meningitis was suspected, but on examining the chest the right upper lobe was found consolidated in its entirety. The fever dropped by crisis, the symptoms abating at the same time.

Recently, I saw in consultation a girl 7 years old who was taken ill during the night with fever, vomiting and abdominal pain, following upon eating cakes, nuts and lemonade on the evening of the same night. The abdomen was considerably dis-

tended and tender, and peritonitis being suspected a purge was administered with but indifferent result. To my mind her appearance was characteristically toxic, and I was struck by the flushed, sub-cyanotic hue of the face, leading me to suspect lung mischief. Posteriorly, a patch of consolidation in the right lower lobe was discovered and the diagnosis of lobar-pneumonia made, which the subsequent course of the case verified.

Tuberculosis in infancy is usually of the caseous variety (acute), for which reason it simulates lobar-pneumonia in many instances in its early stage. When pneumonia migrates, involving first one portion of the lung and then another, the similarity becomes very close. The course is protracted and the diagnosis consequently difficult. Here the family history and history of exposure to tuberculous infection is of value. The ultimate occurrence of the crisis, of course, solves the problem.

The advent of pleurisy may be suspected when the temperature continues beyond the usual limitations of the disease, becoming remittent. Instead of resolution, physical signs persist. The detection of fluid and its differentiation from consolidation is not always easy. It is here that the careful use of the exploring needle is not only justifiable, but imperative.

The bacteriology of pleural effusion has been exhaustively studied by Strauss and Netter in adults and Koplik in children.

Pneumococcus pleurisy is the commonest form in children. It may occur simultaneously with pneumonia, but more frequently it is secondary. Again, it may not occur until several weeks after the attack of pneumonia. The exudate is thick, creamy and not clotted, the prognosis being better than in the *Streptococcic variety*, in which the pus reaccumulates even after thorough evacuation, making the course a protracted one. This form is more common in adults.

Tuberculous pleurisy may develop independently of pulmonary tuberculosis, but in such cases tuberculosis of the bronchial glands and lesions elsewhere usually exist. The effusion at first is sero-fibrinous, later becoming purulent. The course is slow and unfavorable. The pneumococcic variety, therefore, is the one that offers the best chance for prompt cure under appropriate treatment, while the streptococcic and tuberculous seldom recover without radical surgical interference.

The different phases which are assumed by pneumonia, clinically, have led to the recognition of a number of varieties. While this subdivision is not permissible pathologically, still it is of some practical value. Let us remember that in pneumonia we have an infection that may remain localized in one lobe of the lung or spread to adjacent lobes and into the pleural cavity, in some instances even becoming a general infection, thus assuming the course of a septico-pyæmia. Again, the amount of toxin produced and its effect varies in individual cases. In some the brunt of the attack is centered upon the nervous-system; in others the heart or digestive tract are chiefly affected. Then there are cases in which, even with considerable pulmonary consolidation, there is practically no toxæmia.

On account of the greater instability of the heat centres in childhood the temperature is more irregular and remitting than in adults. For this reason the so-called *remitting pneumonia* and *pseudo-crises* are more common in children than in adults.

Cerebral pneumonia has many symptoms in common with meningitis. The retraction of the head, however, is usually associated with rigidity of the entire shoulder girdle, in this way differing from meningitis. Again, the symptoms develop early, while in meningitis complicating pneumonia they develop late in the course of the disease, and the crisis is accompanied by a disappearance of the cerebral symptoms.

Wandering pneumonia implies a spread of the process by invasion of other lobes of the lung. The course is protracted and signs of resolution will be found in one portion of the chest, while adjacent thereto will be found signs of fresh invasion.

Central pneumonia begins in the centre of a lobe, and it may be several days before the signs of consolidation can be made out. Koplik is of the opinion that every case of central pneumonia will come to the surface in due time.

Pneumonia with Gastro-Intestinal Symptoms.—As has been said previously, gastro-intestinal symptoms are, as a rule, prominent in children. They may be due to toxæmia or the direct result of the pneumococcus. I have in several instances found pneumococci in the stools of infants under these circumstances. Ab-

dominal pain and rigidity—probably due to involvement of the diaphragmatic pleura—give some cases an outward resemblance to appendicitis.

Abortive pneumonia is rare in children. Fulminating cases, proving fatal in the first twenty-four hours, are relatively more common, although these are more in the nature of a general pneumococcus infection.

Typhoid Pneumonia.—This is a misleading term, like “typho-malaria.” It simply indicates pneumonia with pronounced toxæmia, in which the patient sinks into a typhoid state. When the temperature is remitting, and diarrhœa at the same time present, the picture becomes quite misleading. Such a case was sent into the children’s ward of the Hahnemann Hospital this summer as one of typhoid fever. The Widal and diazo reactions, however, were absent, and examination of the chest revealed a pleuro-pneumonic process involving the lower portion of the left lower lobe.

Pleuro-pneumonia is a combination of pneumonia and pleurisy. With every case there is associated more or less pleurisy, but in this type the pleura is markedly involved, being covered with a thick layer of fibrinous exudate. Turbid serum exudes from the meshes of the exudate, but there is seldom enough fluid to make aspiration successful.

The *prognosis* of pneumonia in infants is unfavorable, but in robust children between the ages of 3 and 10 years the mortality-rate is surprisingly low. When associated with pleurisy it is more grave. With early evacuation of the pus a case of empyema usually gets well within a few weeks. This applies to the pneumococcic variety and for this reason a smear of the exudate should always be examined microscopically. The other forms of empyema are purely surgical.

After all that has been said in regard to the clinical course of pneumonia there remains little for discussion in the diagnosis excepting the *physical signs*. On account of its aberrant course and the absence of characteristic symptoms pointing directly to the lungs as the seat of trouble, it becomes our duty to examine the chest thoroughly in every febrile affection of childhood. Not only pulmonary consolidation, but also pleural effusion may exist without a single symptom arousing suspicion of the same. I was particularly impressed with this fact by a case

sent into the Hahnemann Hospital this summer which came under my observation through the courtesy of my chief, Prof. Bigler. The patient was a boy 9 years old in the beginning of the second week of a mild attack of typhoid fever. The right pleural cavity was filled with a serous effusion reaching up to the third rib in front, while no dyspnoea was complained of and there was no cough. Bulging of the affected side was absent. Close questioning brought out the fact that he had felt some stitching pains in the lower region of the chest a week previous, but he had made no mention of it.

It does not seem essential to review the physical signs of pneumonia. This much may be said, however, that slight shades of dullness are more difficult to demonstrate in the child's chest than in the adult, and our percussion must be light in order to bring out the difference in pulmonary resonance over the various chest areas. Tubular breathing is also difficult to detect at times, and it is not always possible to distinguish between normal and abnormal broncho-vesicular breathing, on account of its relatively wide distribution and the normally harsh character of the child's breathing. For this reason a diagnosis should never be based upon the presence of any one single physical sign, but every element in the case must be taken into consideration. The crepitant r  le is usually missed, but during resolution *crepitatio redux* is abundantly present.

Pleurisy may be suspected when the child shows a disposition to lie continuously upon one side (the affected side). When effusion has taken place it turns back to the dorsal position and may want to be propped up on account of dyspnoea. The signs of fluid in the chest are not constant and uniform. With a large effusion they are characteristic, but smaller effusions and encapsulated fluid may offer considerable difficulty in diagnosis.

I have not found bulging of the affected side of the chest and intercostal spaces, together with immobility, reliable diagnostic signs on account of their absence in many cases. True, where I have been able to evacuate a pint or more of pus, this condition was present, but such is not the average case. The child's thorax is more yielding than that of the adult, but the intrathoracic pressure is more evenly distributed and, again,

small accumulations of pus are quite common in children, for which reasons we should not expect to find much bulging under ordinary circumstances. Riesman in his clinical teaching lays special stress upon the absence of vocal fremitus over the site of the effusion and the sense of resistance experienced in percussing over this area. By immediate percussion with the entire hand this resistance is best demonstrated. Of all the classic signs, the coexistence of these two seems to furnish the most trustworthy information.

Auscultatory signs actually may be misleading. While fluid usually produces an enfeeblement or complete obliteration of the respiratory sounds, still it may be looked upon as pathognomic of effusion if, following an attack of pneumonia, persistent bronchial breathing remains over the entire affected side, posteriorly. Displacement of the viscera is an important sign when this exists together with other signs of effusion. There is much more to be said about this subject, but the scope of the paper forbids further discussion.

The one positive sign of fluid, after all, is finding the same by means of aspiration. The importance of making an early diagnosis, both from the standpoint of prognosis and treatment, need not be defended. The necessity for having recourse to the needle in order to confirm the diagnosis is not to be taken as a reflection upon our diagnostic ability. If such authorities as Osler, Koplik and Strumpell plainly say that a positive diagnosis cannot be made without aspiration, in many instances we should not hesitate to avail ourselves of this harmless procedure.

Treatment.—While there is no specific or curative serum for pneumonia, still we are most fortunate in possessing such remedies as *aconite*, *bryonia*, *phosphorus* and *sulphur*. Beside medicinal treatment we have in hydrotherapy a most valuable adjuvant.

In the presence of continued high fever, and especially when there is pulmonary congestion and dyspnoea, I apply the cold or luke-warm pack to the chest, renewing the same every half hour until results are obtained, after which it may be changed every two hours. When toxæmia is pronounced I resort to high rectal enemata, using two quarts of hot normal salt solution and leaving about 8 ounces in the bowel. This procedure

both washes out the large intestine and aids in the elimination of toxins by promoting free diuresis; besides it is a good stimulant to the abdominal sympathetic. One of the most remarkable recoveries that has come under my notice was a child seen with Dr. Wm. Weaver. This was a case of pleuro-pneumonia in a child 2 years old, involving the middle and lower lobes of the right side. There was hyperpyrexia and profound toxæmia, the child lying in a stupor for four days. Remedies were carefully selected and stimulation resorted to, but it was apparent to all concerned that the packs and enteroclysis were largely responsible for the ultimate favorable outcome.

Oxygen is another life-saving adjuvant. We should not reserve it for the last stages of a hopeless case, but use it as soon as cyanosis, embarrassed breathing and failing heart are present.

When fluid in the chest is suspected we should aspirate, both in order to verify the diagnosis and determine the character of the fluid. If it be serous we should not be in too great a hurry to evacuate; as a rule it will absorb in due time.

Pus must be freely evacuated. A simple and very efficient method of treatment of empyema is by means of incision of the intercostal space and the insertion of a drainage-tube. This is an operation that can be done even without the use of a general anæsthetic in older children. The fifth and sixth interspace in the mid-axillary and the sixth and seventh in the post-axillary line are the sites of election. Two small drainage-tubes placed side by side, with a safety-pin through their free ends, afford the means of exit for the pus. Should the purulent discharge continue beyond three to four weeks, the case may be considered a surgical one and resection of a piece of one or two ribs performed, so that the finger may be introduced into the pleural cavity and adhesions broken and clots of pus and fibrin evacuated. A remedy that has proven useful in the early stage of empyema is *chininum arsenicosum*. Later we will require *hepar calc. sulph.* or *silica*.

DIAGNOSIS OF GALL-STONES BY X-RAY.—Syms, in the *Journal of the American Med. Assoc.*, states that the diagnosis of gall-stones by the X-ray has proven unsatisfactory. Very thorough investigation has shown that even with the most careful technique a negative finding does not necessarily mean that gall-stones are not present. A positive finding, of course, is of the greatest value.

THE GOLDEN MEAN.

BY H. E. BEEBE, M.D., SIDNEY, OHIO.

Is clinical experience a reliable guide in practice? I think I hear some one say, "Yes, of course it is, why ask so foolish a question?" But, how much clinical experience is wanted before it is a true guide. That depends largely upon the judgment of the clinician. If he or she is an enthusiast, which is a valuable quality, it may demand more experience than if the worker belonged to the slow, plodding class in general practice, not the back numbers in this branch of the profession.

Now, don't think we are making a thrust at the learned specialist, for no one has a higher regard for the thoroughly trained worker along special lines than the writer, but it must be remembered the student taught along one idea, valuable as his knowledge is, he is at the same time too often biased, and therefore not to be depended upon for positive final deductions.

In practice, before reliable conclusions are deduced, sufficient time should elapse and a good array of cases recorded to judge fairly. Furthermore, in time the general profession render an unbiased opinion, which is usually about correct. With this prelude permit the quoting of the following, though the topic be rather worn out; this is to-day the expressed view of many in our ranks.

"*Appendicitis*.—J. J. Brownson (*American Medicine*, January 16, 1904) believes that there are three periods in which the operation for appendicitis can be safely performed: 1. At the inception of the disease before fever. 2. After the fever and distention have subsided and suppuration has taken place. 3. In the interval after all signs of inflammation have disappeared. He says that there have been more deaths from appendicitis since the operative method has been in vogue than during the expectant plan. He believes that this is due to interference being practiced at the wrong time. He concludes that the operation for appendicitis ought to be done in the

primary or before-fever period. The appendix should be removed, to guard against fulminating cases and those in which rupture occurs into the abdominal cavity. In the secondary period, after suppuration, drainage should be instituted, and nature left to take care of the appendix. In the interval, after all symptoms of inflammation have subsided, the appendix should be removed. The operation ought not to be done in the intermediary period when there is fever and distention of the abdomen, because the danger from operation at this time is greater than the risk of the case becoming fulminating, or the abscess bursting into the abdominal cavity."

Now, are these conclusions valid, and has clinical experience proven them to be true? Our brother surgeon specialist says: "Why, this is only one man's opinion, and his utterances are mere assertions; *we* simply assert to the contrary, and our opinion is formed from actual practical work." Possibly this is so; but does not the prevailing sentiment of to-day confirm these assertions and ask for more conservative measures? It certainly does, and besides, is not the golden mean being now established according to Dr. Brownson's opinion? We believe it is.

Appendicectomy is quite often a most important and necessarily skilful operation, but to know when to do it is as important a question as to know how it ought to be done. Don't think all cases of appendicitis require a surgical operation.

The surgeon is usually called to operate and nothing more, for as to the need of an operation that matter has been settled before he is called into the case. I, myself, have had this experience, having operated where I felt it was not really required, but the family physician said: "I called you to operate, and if you don't do so I shall get some one who will operate, for we have decided that it is a necessity." Well, I didn't let them call some one else. Fortunately the patient recovered.

Again, I have operated where the attendant thought it unnecessary, and I knew it must be done. But I don't cut in these cases as frequently as I formerly did, depending upon more conservative attention. Dr. Terry's oil treatment is my favorite measure. He says that out of fifty cases, under his personal supervision, forty-four were successfully treated without operation.

Oöphorectomy is a very beneficial measure when needed and when well done, but to-day this surgical operation is not resorted to once where it was performed a dozen times ten years ago. Again the golden mean has been established.

Gall-bladder surgery is another great necessity, but we are having too many bad results, not always fatalities, but biliary fistulae, which may be more annoying than the primary liver trouble. The risk is too great to have this operation done promiscuously, and, too, by amateur surgeons. Gall-stones do not always cause trouble, for they are found unexpectedly in many post-mortems. The essential point is to decide when to operate, not so much how, the same as in appendicectomy.

One of the latest, and a most important surgical operation to-day, one that gives satisfactory results, as a rule, is prostatectomy, but enthusiasts are, we fear, overdoing it. Honest, of course, but doubtless removing this gland when not necessary and sometimes bringing the work into disrepute.

No single operator has yet had sufficient experience to enable him to speak authoritatively upon the subject, and such extremes of experience have been reported that it is difficult to estimate the real dangers and difficulties of prostatectomy. It is too grave an operation to be resorted to as a routine treatment for enlarged prostate, and is only applicable to properly selected cases. The greatest danger after the operation is uræmia, and the kidney should be carefully examined before operation. The next danger is sepsis, particularly in the presence of an infected bladder. Watch closely, and in due time this operation, like the others referred to, will reach its climax and seek its level.

Certainly clinical experience *is* a most valuable aid in determining the reliability of much in the practice of medicine and surgery.

Dr. Brownson's opinion on operating for appendicitis is but one example, while many others can be furnished. That clinical experience will find the "golden mean" in due time is, we believe, an established fact.

EDITORIAL.

PHTHISIOPHOBIA OFFICINALIS.

WE took occasion a couple of months ago (July, "Phthisiophobia") to speak of the hardships and injustice which were apt to result from the declaration of the Surgeon-General, that tuberculosis was to be classed as a "dangerous contagious disease." Were any proof necessary of the absurdity and irrationality to which a strict interpretation of this declaration would lead, it surely would be found in the following, clipped from the daily press:

SAN FRANCISCO, Oct. 13.—Amades Horville, one of the Supreme Justices of Tahiti, was to-day denied by the United States Department of Commerce and Labor the privilege of passing through the United States on the way to his old home in France, because he was found to be afflicted with consumption.

He arrived at this port last Wednesday on the steamship *Mariposa*, from Papeete, and was accompanied by two officers of the French navy and A. F. Ducorron, vice-consul of the United States at Tahiti. The United States Quarantine Department notified United States Immigration Inspector Adela Torre, Jr., that Justice Horville was suffering from tuberculosis and the malady was regarded by the service as being contagious.

Accordingly, Immigrant Commissioner Charles Mehan wired to Washington for instructions and received a telegram to-day from Acting Commissioner-General Larned ordering the return of Justice Horville to the port whence he came.

Is it not about time to call a halt, and for the sober-minded members of the profession to raise their voices in protest against the lengths to which the faddists, in their enthusiastic pursuit of the *White Plague*, are carried?

They seem like children with a new toy, or rather like a lad with his first real gun. They never tire of recounting the dangerous possibilities lurking around the poor consumptive, and the various ways in which the white plague might get in its work, were it so inclined, until eventually they create and foster in their own minds, and in the minds of the public, such an unreasoning terror of tuberculosis that they become guilty of insane extravagances such as the one narrated above.

The basis of almost universally recognized truth in this phthisiophobia, if rationally applied, would be sufficient guide in the prophylaxis of the disease, and in the prevention of infection. But the human imagination loves the horrible, and even the medical mind is not free from this hankering after the extreme. There is a sort of grim satisfaction—a feeling of superiority as an instrument of Fate—felt by many physicians when called upon to pronounce a fatal prognosis, or to prescribe extreme measures. Deny it if you will, but you will feel it at times yourself. It seems unnatural, yet it is but one manifestation of that desire for the exhibition of power and superiority, which is innate in all. The preacher preaches hell-fire with the same zest as the physician dooms his patient to worse than a living hell.

Were tuberculosis to the same extent and in the same manner contagious as, say, scarlet fever or smallpox, then would such action as that described above be justifiable, and would meet with the hearty approval of all. The extent to which tuberculosis is contagious and the manner in which infection takes place are so well known and understood, and the means of prevention so simple, that every right-minded person with a spark of humanity in his breast would revolt, we should think, at the unnecessary and cruel action of the “larned” authorities.

Here is a person, to judge from his position, educated and well-informed, prevented from crossing our continent to return to his own home in France. There is here no question of becoming a burden on the community, since there is no intention of remaining here. It is only the fear lest in crossing through our “land of the free and home of the brave,” he may infect some place or person, that has led to the drastic action of the fearsome authorities.

It can hardly be supposed that this Justice was unacquainted

with the present status of the tuberculosis question, in a general way, as to source of infection and means of prevention. He may have known that by some he would, under certain conditions, be regarded as a menace to the community; but, knowing these conditions and how easily they could be controlled, it is not likely that he would neglect the effort to overcome them. It was, therefore, to be supposed that he would take all known precautions on his travels to avoid doing harm to others. That he should be treated as an unclean person, one from whom emanated some dire menace to the welfare of all those with whom he came in contact, seems to us an outrage on common sense, to say nothing of any higher feelings of humanity. Even those who use the term "dangerous contagious disease" know that it conveys a different meaning to the public from what it does to themselves, and yet, even in the mind of the Surgeon-General, to judge from the restrictions based upon it, it must possess a significance which it surely does not in the majority of medical minds. That there is danger of infection from a tuberculous patient, due to want of care on the part of himself or his attendant, no one will deny, but that in the present state of our knowledge the disease should be classed as a "dangerous contagious disease" we think few will be willing to maintain. It seems a great pity that the original etymological distinction between contagion and infection should have fallen into disuse, for, had it not done so, we doubt whether there would be many to agree with the classification of tuberculosis as a contagious disease, much less a dangerous one.

Where will this dread of infection end? Where will this attempted exclusion of every form of infection from without find its limit? It is hard to say. With the extremes to which it has already ruthlessly and cruelly been carried we have no sympathy, and we trust that the day is not far distant when the pendulum will be swinging towards the opposite extreme,—and that we may be living to see it just before it reaches that point. Instances of absurd pathophobia, such as the one of which we have been speaking, must gradually bring about a reaction and cause legislation to be tempered with common sense. Perhaps we must wait until the Acting Commissioner-General is not Larned, but learned; if so, God grant that that time may soon come.

THE DEATH OF DR. ROBERT ELLIS DUDGEON.

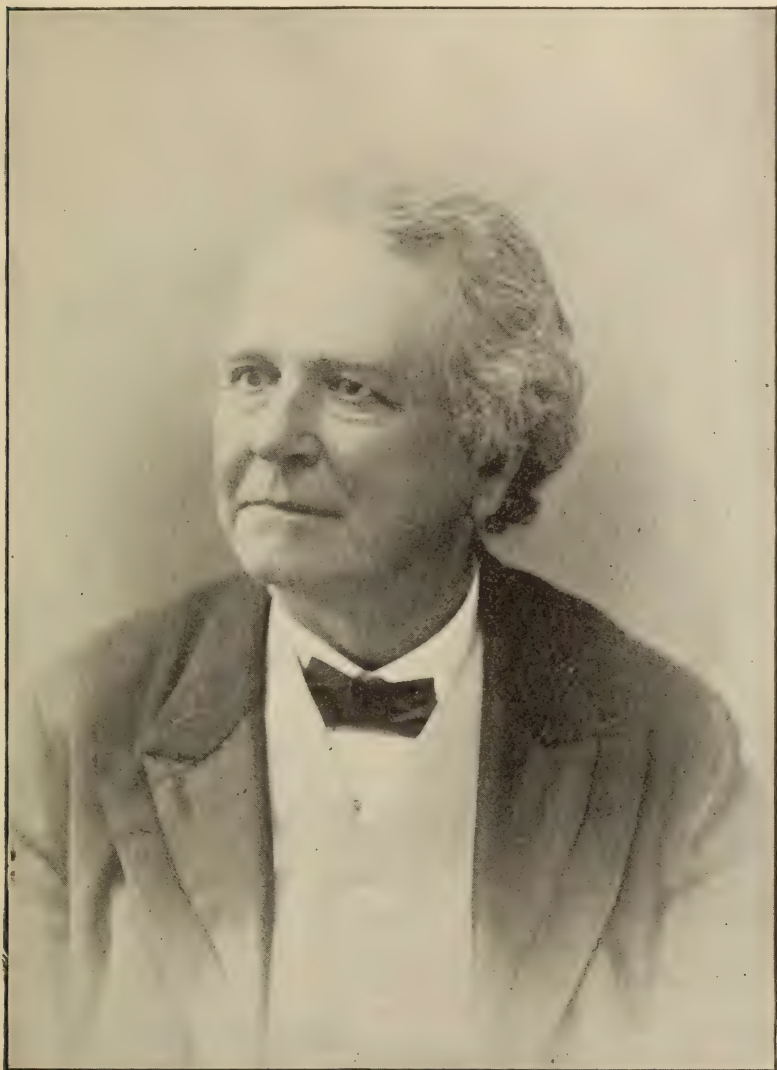
*"Pallida mors a quo pulsat pede,"**"Pauperum tabernas, regnumque turres."*

It is with great regret we learn that the "grim harvester" has cut down that distinguished physician and able supporter of homœopathy in England, Dr. Robert Ellis Dudgeon.

For some months Dr. Dudgeon had been suffering from a skin disorder which developed into an abnormal form of pemphigus and gradually undermined his vital powers. He died peacefully on the 8th of September, in the 85th year of his age. In 1892, at the request of Dr. W. Van Baun, Dr. Dudgeon forwarded his photograph and an account of his life, which was published in the February issue of the *HAHNEMANNIAN MONTHLY* of that year. For the benefit of those who may not have access to the issue above referred to, we have reproduced the photograph received from Dr. Dudgeon at that time, and also reprinted portions of his letter, in order that our readers may have the history of his life in his own words:

"Dear Dr. Van Baun: You asked me for a photograph of myself for the *HAHNEMANNIAN MONTHLY*, and I cheerfully consented to send you one as soon as one of our rare glimpses of sunshine should allow me to sit to the solar artist. Now that you have got the portrait, you ask me to send you 'a lovely sketch of my life,' to match the picture, I suppose. But that is a very different matter, and a request not nearly so easy to comply with. In the course of my long career I have written many sketches of the lives of different homœopathic worthies, but have never yet attempted one of my own life. The memoirs I have written of others I have always been able to round off and give them the proper artistic finish by recording the death of their subjects, but in the case of my own life by myself you must not look for such completeness, for, unlike Moses, I am not able to tell you my exact age at death; still less can I boast like him that when the end came 'my eye was not dim' (alas! I have to wear spectacles and have a most pronounced *annulus senilis*), nor my 'natural force abated.'

“I was born, as I have been informed, for my memory does not go so far back, in a country house in the outskirts of Edinburgh, on St. Patrick’s day, 1820. This, I hope, is the only



R. E. DUDGEON, M.D.,

HONORARY PRESIDENT OF THE INTERNATIONAL HOMŒOPATHIC CONGRESS, 1892.

event in my narrative which I must give on other than my own authority. My medical studies were carried on in the University and the extra-academic Medical School of Edinburgh. I

took my surgeon's diploma in 1839, and as I could not obtain my university degree before I had attained my majority, I spent the intervening time chiefly in Paris, where I pursued my studies in the École de Médecine and the hospitals, attending the lectures and the clinical practice of Velpeau, Andral, Civiale, Maisonneuve, Louis, Piorry and others. Returning to Edinburgh in 1841, I passed my final examinations and was duly invested with the magic cap which constituted me 'Medicinal Doctor,' on the 1st of August of that year. After that I went to Vienna, where I passed a semester and profited by the instructions of the great medical lights of that city, among whom I may mention Skoda, Rokitsky, Hebra, Heller and Jager. I had for fellow-students in Vienna, Drysdale, Russell and Fisher, all well-known in the homœopathic world, and Wilde (afterward Sir William), who did good service to homœopathy by stating the truth respecting its success in the treatment of cholera in his book on Austria. We were all very sociable, and used to dine together at a favorite restaurant. Almost every day Drysdale, Russell and Fisher were studying homœopathic treatment at Fleischmann's Hospital. At that period I felt no interest in Hahnemann's system. I next spent a few months in Berlin studying eye and ear disease under Jüngken and Kramer, and organic chemistry under Simon. I then went for some months to Dublin, where Graves, Stokes, Corrigan and Marsh were in full force. I renewed my friendship with my old chum Wilde, and visited his eye and ear practice diligently. Thus equipped with as much medical learning as I could comfortably assimilate, I set up in practice in Liverpool, where my father then resided. Drysdale, who practiced there then as now, persuaded me to look into homœopathy. In 1843 the *British Journal of Homœopathy* was started by Drysdale, Russell and Black, though there were not then a dozen homœopathic practitioners in the United Kingdom. Drysdale gave me many articles to translate from the German for the journal, and I thus learned a good deal about the new system, and gradually became a thorough believer. By Drysdale's advice I returned to Vienna to see the homœopathic practice of Fleischmann in the famous Gumpendorf Hospital. I now had for fellow-students Madden, Hilbers and Macleod. Madden and I, with our wives, lived together, and we devoted much of

our time to the study of the *materia medica*; endeavoring to construct real pictures of disease from the *dissecta membra* of the provings, with but little success as may be imagined. I made the acquaintance of most of the principal homœopathic practitioners of the Kaiserstadt, Wurmb, Watzke, Gerstel, Zlatarovich, Nehrer and many others, whom I frequently met at the society and at their social gatherings, and from whom I learnt much. At that time Vienna was in the heyday of its homœopathic fervor, and a vast deal of invaluable work was done in the way of proving new medicines and reproving old ones. Many useful essays were also published in the periodicals edited by the homœopathic society. A few years later the representatives of homœopathy in Vienna, apparently exhausted by their effort, subsided into a lethargy from which they have not yet been aroused. While their zeal lasted we must allow that they did splendid work.

“On my return to this country I commenced practice in London. That was in 1845. The following year I joined Drysdale and Russell in editing the *British Journal of Homœopathy*, then commencing its fourth volume. Black had withdrawn from the editorship after the first volume. I remained editor till the cessation of the journal in 1884.

“I had a considerable share in founding the Hahnemann Hospital and School of Homœopathy in Bloomsbury Square, with which was connected the Hahnemann Medical Society. I need not give the history of that movement. While it lasted some useful work was done. Courses of lectures were delivered to students at the hospital by Dr. Curie on Therapeutics, by Dr. J. Epps on *Materia Medica*, and by myself on the Theory and Practice of Homœopathy (my lectures were published in one volume in 1854). Dr. Currie having died, the managing committee of the hospital, all laymen, and most of them Curie’s personal friends, laid their wise heads together, and finding that the hospital had no debt resolved to shut it up, and this they did without giving the medical staff the slightest hint of their intention, so that we were amazed and disgusted to find, one day, the shutters up and bills announcing the place to be let. We were naturally indignant at this high-handed action of the committee, as the hospital was doing very good work among the poor of the neighborhood, and

many interesting cases were treated and fine cures made in it. My investigations into the dioptries of vision led me to a new explanation of the mechanism of accommodation, differing entirely from that generally received. I do not think my explanation has been adopted by any prominent authorities on the physiology of the eye except Dr. Jacob, of Dublin, the celebrated oculist, who first described the structure in the eye that goes by the name of 'Jacob's membrane.' My desire to gain publicity for my view of the mechanism of accommodation led to an animated conflict with the committee of the International Ophthalmic Congress of 1872, in which I gained a signal victory over the anti-homœopathic bigots on the committee who sought to exclude me from the Congress, and prevent my reading a paper on the subject, on the ground that I practiced homœopathy. I read my paper, and it is published in the *Transactions* of the Congress. A full account of my views on the mechanism of accommodation and a description of my diving spectacles will be found in a little work I published entitled *The Human Eye; its Optical Construction*.

"In 1879 I got a Ponce's sphygmograph, which, though in some respects an improvement on Marey's, was yet far from satisfactory. I believed I could contrive a better instrument, so I set to work to try. A young watchmaker's apprentice from the Black Forest about this time came to London to seek for work. I asked him if he could make a sphygmograph under my direction. He said he thought he could, and after several failures we at last succeeded, and the pocket sphygmograph which bears my name was the result. At first the allopathic authorities, disliking its origin, and yet not liking altogether to condemn what might ultimately prove to be first favorite, hedged cautiously about it, damning it with faint praise, such as 'a pretty toy, but not to be compared as to accuracy with the instrument of Marey,' and so forth. But now it is generally acknowledged to be the best, and most of the recent writers of text-books on physiology and pathology describe and figure my sphygmograph and no other, and seem quite satisfied that the pulse-tracings it makes are reliable and accurate.

"My contributions to homœopathic literature are too numerous to mention, but perhaps my chief claim to remembrance by

the homœopathic world is as the translator of all Hahnemann's homœopathic works (except the *Chronic Diseases*) and many of his pre-homœopathic works. I have been twice chosen President of the British Homœopathic Society, once of the British Homœopathic Congress, and the crowning honor of my life was my selection as President of the International Homœopathic Congress which met this year at Atlantic City. I much regretted my inability to put in a personal appearance on that great occasion, but I am highly sensible of the honor conferred on me by the choice of my American colleagues. I have twice been chosen to deliver the Hahnemann Oration at our hospital here.

"Now you have my whole history, and I hope your readers may be edified and not unduly bored by it. This first experience of autobiography has impressed me with the disadvantages under which an autobiographer labors. In writing the memoirs of others' lives, the author is free to distribute his praise or blame, as he thinks fit, to his subject's conduct or sentiments, and indeed every competent biographer is expected to do so. But when he writes his own life he must studiously refrain from auto-laudation. 'Self-praise,' says the proverb, 'is no recommendation.' He might, indeed, imitating the self-depreciation of St. Paul, admit that he had occasionally acted or spoken 'as a fool,' but few show Dogberry's desire to be 'written down an ass,' even by themselves. The autobiographer is therefore limited to a bare recital of the acts of his life, and must leave the reader to make his own comments and form his own judgment as to the wisdom or folly of his acts. I trust your readers will be indulgent in their judgment and pronounce a favorable verdict in my case.

"I remain, yours very cordially,

"R. E. DUDGEON, M.D.

"53, Montagu Square, London, England."

In the death of Dr. Dudgeon homœopathy in England has lost one of its oldest and most renowned advocates. For almost sixty years he has stood in the foremost rank fighting for the proper recognition of the homœopathic school. His contributions to the literature of our school were numerous and valuable. To general medicine he gave his lenses for sub-aqueous

vision, and the Dudgeon sphygmograph. This latter instrument was at first ridiculed by the opponents of homœopathy, but is to-day admitted to be the most practical sphygmograph ever invented.

Notable in his professional life for determination and force of character, in his private life Dr. Dudgeon's conduct was marked by the greatest gentleness and kindness. Among his colleagues and patients he was loved for his kindliness as much as he was respected for his ability. As we stand in fancy by his funeral bier and contemplate his life of broad philanthropy, of loyal devotion and of useful activity, we realize the truth of those words of the poet :

"Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time."

WE ARE DISCOVERED !

A NEW book on diseases of the stomach has appeared. It has as its author Boardman Reed, M.D., Professor of Diseases of the Gastro-Intestinal Tract in the Temple Medical College of Philadelphia. Let us say that the book is a good one; but it is not to its general excellence that we wish to bear testimony at this time. We simply wish to let our *confrères* know that we are being discovered.

On page 366 we find a section entitled: "The usefulness of certain drugs in minute doses." It aroused our interest. Here is how the author started it.

"It was John Wesley, I think, who objected to letting the devil have all the good tunes, and whatever wickedness may still be imputed to the homœopaths, I never could see the wisdom of letting them monopolize any really efficient remedies."

Just think of the richness of this quotation.

First, the author likens us to the devil.

Next, he admits that we have "really efficient remedies." Inferentially, he proposes to steal these remedies with credit, because we as devils have no right to them, and they should

at once be consecrated to the cause of righteousness, namely, the allopathic school. What conceit!

Then he proceeds to tell his readers what a very good medicine arsenite of copper is when given in very minute doses. Only you must be careful and not give too much of it or you may aggravate your case. The proper dose is one five-hundredth to one thousandth of a grain every fifteen to thirty minutes.

After admitting that this inspiration came from the homœopaths, he proceeds with a short argument concerning the *modus operandi* of medicines in such minute doses, concluding: "Thus the action is really antipathic, not homœopathic at all."

With all-holy righteousness he proceeds: "But we of the regular school also habitually administer many remedies in small doses for their primary effect only, avoiding strictly the large dose, which would produce their physiologic or toxic action. Among such remedies may be mentioned arsenic, most of the metallic salts, hydrocyanic acid, alcohol, and ether and chloroform internally. Other drugs we administer in both small and large doses for totally different and opposite effects. These include ipecac and tartar emetic." . . . "Calomel is largely used by pædiatrists in small doses to control the diarrhœa in children." . . . And he closes his interesting chapter with a parting shot, equivalent to saying, "Now will you be good," by remarking, "The bugaboo, homœopathy, ought no longer to stand in the way of progress in this direction."

Really, it would seem that Dr. Reed admits the value of many remedies used by homœopathists for definite purposes almost exclusively.

The bugaboo homœopathy stands in the way of their acceptance.

Possibly, in view of their adoption by a regular daddy who stands between the holy regular and the bugaboo, the holy regular will not be afraid to step forward to use them hereafter.

And, furthermore, it is suggested that Ringer, Phillips and others attained eminence by not being afraid of the "bugaboo," and helping themselves to the "bugaboo's" good things at their own sweet wills.

THE PENNSYLVANIA STATE SOCIETY MEETING.

THE most successful meeting of any State Society of our school of medicine was that held by our Pennsylvania organization at Easton, September 20th to 22d. In the first place, the attendance was phenomenal. In a provincial town with a relatively small local profession from which to draw, there were no less than 250 registered in attendance.

In the second place, owing to the personal work of the President, Dr. Kline, of Reading, over 65 new members were admitted.

Thirdly, papers and discussions were of decidedly more interest than usual. Occasionally, the discussions were marred by the omnipresent nuisance who talks much and says nothing concerning every subject which comes up. This was really the only drawback of the meeting. But that is to be expected, for every society possesses such individuals.

Fourthly, the hospitality of the citizens of Easton exceeded that of any meeting place within our knowledge.

The result of all this was that the society thought it a good plan to try another interior town for its next meeting place, and so it selected Altoona.

The success of the meeting was due to the Lehigh Valley Society as an organization, and especially to the personal efforts of Dr. W. A. Seibert, of Easton, and Dr. D. C. Kline, of Reading. Both of these men gave freely of their time and services in a way to demand admiration.

The unanimous election of Dr. Seibert to the presidency was a well-merited compliment to his efficiency as an organizer and his attainments as a scientific medical man.

It is now up to Altoona to beat the record made by Easton.

CANCER AND THE X-RAY.

THE *Medical Record* refers editorially to two cases of cancer in which the causative relation of the X-ray was unquestionable. The editor naively remarks: "Why the rays should act now curatively, now causatively, is one of the mysteries of medicine." So it is! And the same might be said of many other substances which act "now curatively and now causatively."

GLEANINGS.

AN ANALYSIS OF ONE HUNDRED AND FIFTY CASES OF DEATH FROM BRONCHO-PNEUMONIA.—(Hardy.)—These are in children under 13 years of age, and are associated with post-mortem reports. He endeavors to show that feeding by bottle instead of breast increases the mortality considerably. Out of 764 cases under 4 years of age, in which the method of feeding was known, 32 were breast-fed and 22 were bottled-fed. The deaths from broncho-pneumonia were equal, but, according to the writer's computation, ratio among the bottle-fed babies and breast-fed is as 69 to 9, *i.e.*, the mortality from broncho-pneumonia is 7.7 times greater. There were well marked signs in 16.7 per cent. of cases. Of 95 cases between the ages of 6 months to 3 years there were 22 per cent., while between 1 and 3 years, where we would expect to find the most rickets, there was 25 per cent.

In 15 cases the disease followed on measles. Of these, 4 patients under the age of 1, 5 between 1 year and 2 years, 3 between 2 and 3. Twelve cases occurred during an attack of diphtheria. Whooping-cough was a contributory factor in 7 cases; 8 cases occurred during an attack of meningitis; 5 during epidemic cerebro-spinal meningitis; 2 secondary to suppurative otitis media.

Scalds and burns produced 2 cases: 1 case followed upon foreign body in œsophagus; 1 was secondary to erysipelas.

Twenty-one cases began by vomiting and diarrhœa. The right lung was alone affected in 9 cases, the left in 9, and both in 132; 4 cases were associated with empyema; 15 cases were complicated with fibrinous pleurisy; 1 with effusion; 16 by empyema.—*The Lancet*, September 24, 1904.

William F. Baker, A.M., M.D.

RESULTS OF X-RAY TREATMENT.—Childs, in an article in the *New York Medical Journal* (July 2, 1904), expresses the opinion that sufficient time has not yet elapsed since the first cases of malignant disease were successfully treated by X-rays to consider them permanently cured. Surgeons have frequently reported recurrences of carcinoma ten years after operation.

Realizing, however, that it will require several years to establish a just judgment on the value of the X-ray as a remedial agent in certain malignant forms of disease, and that even then we can only arrive at its correct status after a careful synopsis of the results or failures reported by many different operators, the author has endeavored to draw a few conclusions from his own experience and that reported by others.

First, the therapeutic field of greatest usefulness of the X-ray is with superficial epitheliomata, rodent ulcer and lupus vulgaris, when the area involved is conspicuous, as on the face or neck, and where a cosmetic result is particularly to be desired.

Second, healing by the X-ray leaves the smallest and least perceptible scar, for when properly applied it destroys only diseased tissue, and particularly commends itself for use in those localities where it is undesirable to sacrifice the surrounding tissues.

Third, the X-ray is very efficacious in many obstinate cases, which have resisted the ordinary methods of treatment, such as acne rosacea, chronic localized patches of eczema and psoriasis, lupus erythematosus, and kindred skin diseases.

Fourth, the X-ray in tuberculous glands when no suppurating focus is present are encouraging, and the enlarged masses of glands in Hodgkin's disease appear to be susceptible to the treatment.

Fifth, the X-ray should not be employed in any operable, deep, malignant growth, with two exceptions: first, as pointed out by Coley, where a surgical operation would sacrifice an extremity, and even in this case the value of the X-ray is uncertain, and is determined by a few weeks' trial; secondly, as mentioned by Pusey, with a view to limiting the operation by checking the growth when immediate operation is inadvisable.

Sixth, the X-ray may be of service even in inoperable malignant growths, by relieving pain, diminishing discharges and lessening their offensiveness, and in many cases life may be prolonged in comparative comfort for a considerable period of time. Furthermore, from these apparently hopeless cases a number of remarkable improvements and a few recoveries have been reported.

Seventh, the X-ray should be used as a prophylactic against return after all operations for the removal of deep malignant growths.

Eighth, the area of exposure should be wide, and the intensity and quality of the rays should be adapted to each case.

THE DIAZO REACTION.—Cummins summarizes the results of his investigation of the Diazo reaction as follows: 1. The Diazo reaction is of value in differentiating a relapse from a complication in typhoid fever. 2. It may be of assistance in separating measles from German measles. 3. It has great prognostic significance in pulmonary tuberculosis. It does not appear until late, and is usually noted in a rapid case. When it once appears it persists until death. The average duration of life after the appearance of the reaction is about six months. 4. The Diazo reaction at a dilution of 1 to 40 is of some value in the diagnosis of typhoid fever, but on employing a dilution of 1 to 150 other conditions are eliminated (except a small percentage of tuberculosis cases), and the test, therefore, is considerably enhanced in value.—*University of Penn. Med. Bulletin*, September, 1904.

STATUS LYMPHATICUS WITH REPORT OF CASES.—R. A. Beichele reports three cases of *status lymphaticus*, or *lymphatism*, and calls attention to the fact that, although much attention has been directed to this subject recently, still little is really known of its true clinical significance. Little progress also has been made in its clinical recognition, the majority of cases being diagnosed at the autopsy.

Status lymphaticus may be defined as a condition of hyperplasia of the lymphatic system and of the thymus in particular, with which there is associated either a constant or intermitting lymphotoxæmia. The first observer to recognize in the general lymphatic hyperplasia a pathological entity was Paltauf (1890).

Associated with the enlarged thymus there is general lymphatic enlargement, the hyperplasia of the mesenteric glands, Pyer's patches and solitary lymph nodes of the colon being notable. The spleen is usually enlarged, while the kidneys frequently give evidence of cloudy swelling. The theory

that the thymus produced dangerous pressure in the mediastinum, and thus was the cause of the sudden death characteristic of lymphatism, is no longer held by most authorities. The theory of toxicity seems most plausible. Blumer offers the following explanation: "We would suggest that individuals who are subjects of the status lymphaticus are born with an instability of the mechanism regulating the 'horror autotoxicus,' at any rate, so far as the lymphatic apparatus is concerned, so that they are subject to intermitting attacks of lymphotoxæmia, which may lead to nervous phenomena of various kinds, or may cause sudden death from cardiac paralysis."

Three cases are reported in which death occurred with symptoms of thymic asthma and nervous disturbances. The autopsies revealed the enlarged thymus and the other characteristic changes. The unfavorable prognosis in these cases should always be borne in mind, and we are to be blamed if we regard cases with general lymphatic enlargement lightly. The surgeon should also be on his guard, as these children take an anæsthetic badly and may die from the effects of a trivial operation. Enlarged tonsils and adenoids are a frequent accompaniment of the status lymphaticus and caution should be exercised in operating for the removal of the same, especially in young children. —*Archives of Pediatrics*, July, 1904.

C. Sigmund Raue, M.D.

"INTERRUPTED CIRCULATION" AS A THERAPEUTIC AGENT.—(Ewart.)—Improved union of fractures was obtained by Thomas by "damming the circulation" above and below the lesion. August Bier derived good results in various conditions, including joint affections, from a "continuous passive hyperæmia induced by slight compression of the veins above the part affected." All these observers used the tourniquet *to the veins only*, with a view to increasing local nutrition by vascular overcharge. The method advocated by Ewart is an imitation not of an abnormal circulation, but of the healthy circulation, with its afferent pressure-waves of nutrient blood and its efferent suctional stream of denutritive juices. The method is carried out in the following manner: A padded armband of soft leather, or a circular pad of lint and cotton of sufficient thickness to protect the nerves, having been secured around the upper arm or the thigh, a loop of india-rubber tubing is passed around the limb over the pad, and the two ends of the loop are strongly put on the stretch with one hand. The other hand then grasps the tubes close up to the limb, thus tightening the loop into a strong ligature or tourniquet. The degree of arterial occlusion depends upon the strength with which the two ends of the loop are pulled up, the limb having previously been drained of much venous blood by raising it and by stroking the larger veins empty. The compression at once induces cutaneous blanching and numbness of the extremity; this is maintained for half a minute, or two minutes at the most. The tube is then let go, and this is followed by a bright capillary flush and a pleasant feeling of warmth. The same manœuvre is then repeated, say, six times, at intervals of a few seconds. Two or more such sittings are used daily. In this way we obtain rapid alternations of capillary flushings and of capillary emptying. The method is easily carried out by a nurse or attendant. Two cases of rheumatoid arthritis are reported by the author in which this method of treatment gave excellent results. In both of these cases the synovial and lymphatic effusions seem to have been more benefited than the peri-articular fibrosis. The method would therefore be specially promising in the early

stages and in the exudative forms of rheumatoid arthritis, it being understood that it is merely an adjunct to constitutional treatment. Ewald mentions the use of a similar procedure to prevent gangrene after ligation of a wounded femoral artery. Arterial compression has also proven useful in dressing large wounds or burns, by obviating the distressing pain and bleeding otherwise unavoidable.—*Lancet*, August 13, 1904.

CAUSES OF VERTIGO.—Aldrich classifies the causes of vertigo as follows :

1. As a symptom of a disease or disturbance of the semicircular canals, the nerves of eye, or of the cerebellum ; in short, a disturbance of the apparatus of equilibrium, whether destructive, irritative or functional—Meniere's disease.

2. As a manifestation of various diseases of the external and middle ear ; tympanitic irritation, jolypi, hardened wax, etc. ; changes in atmospheric pressure as experienced in ballooning or working under compressed air ; affections of the Eustachian tube with consequent congestion and lack of ventilation of the tympanic cavity—tympanic or auditory vertigo.

3. As an indication of organic brain disease, such as severe concussion, abscess, brain tumor, brain syphilis, meningitis, multiple sclerosis, and general paralysis—irritative vertigo.

4. As an evidence of an incoördination of sensory impressions received by the brain through the organs of vision—ocular vertigo.

5. As a manifestation of disordered circulation of the brain, whether due to a functional interference with the normal supply of blood to its tissues, grave alterations in the pressure of the blood-stream itself, or to an actual organic affection of the vessel walls—vascular vertigo.

6. As a symptom of neurasthenia or other neuropsychosis—psychic vertigo.

7. As an accompaniment or an equivalent of epilepsy or migraine—equivalent vertigo.

8. As a result of tissue starvation, as in chlorosis and anæmia, or following severe hæmorrhage, shock or syncope—vertigo of cerebral anæmia.

9. The effect of intoxication and infections, lithæmia, drugs, poisons, auto-intoxication, Gerlier's disease—toxic vertigo.

10. The outcome of reflex excitations of the mechanism of equilibrium (stomachic vertigo, laryngeal vertigo, uterine vertigo, etc.)—reflex vertigo. Charles J. Aldrich, M.D.—*Therap. Gazette*, September, 1904.

DIETARY OF THE CHILD IN HEALTH AND DISEASE.—Henry Sheffield gives a practical *resumé* of the subject of diet in infancy and childhood and insists that when the child is over one year old we should make the effort to teach, so to speak, its digestive organs to digest certain articles of food to which they must of necessity become accustomed eventually. Emergencies may arise when milk must be stopped entirely for some time ; under these circumstances it is a great advantage if the child can be made to be satisfied with broths and cereal gruels.

Even after we have begun to give the child such articles of diet as cereals, oatmeal crackers, broths, soft boiled eggs, baked apples, baked potato, etc., we should remember that the main food still is milk. The writer is of the belief that the reason many children discontinue to take milk willingly after they are in their second year is because, usually at the advice of the family physician, the bottle is taken away from them. He deprecates this fact and urges

physicians to allow children their bottle so long as there may be any advantage in so doing.

In acute illness Nature fortunately induces anorexia, which acts as a safeguard against overfeeding. It is remarkable how long an infant can get along with nothing but water during acute illnesses and do better than it would if fed upon food requiring the use of its digestive organs.

In delirium or stupor gavage and rectal feeding are applicable. We should remember that in children rectal feeding is more likely to induce irritation than in adults. On the whole, gavage is more practicable than rectal feeding.—*The Post-Graduate*, August, 1904.

DURATION, COURSE AND TERMINATION OF GLYCOSURIA IN CHILDREN.—Heinrich Stern writes an interesting editorial upon the subject of glycosuria and diabetes in children. Diabetes is only to be established upon the coexistence of glycosuria with polyuria, excessive thirst, progressive emaciation, decline of bodily strength, etc. Stern has never seen genuine diabetes in nurslings, and he doubts if it ever occurs, although the non-diabetic form of glycosuria is not uncommon in early life.

Glycosuria and diabetes are of more frequent occurrence as the child advances in age. Among the causes he assigns developmental anomaly of the brain or nervous system. Also, were we to examine for glycosuria in every instance of infectious disease and in every trauma, this condition would be more frequently met with.

The *prognosis* is gloomy in diabetes. Most cases die within one year from the time of onset. Occasionally, a protracted course is met with, but we must not look for the chronicity encountered in adults. Cures are on record, but Stern inclines to the belief that these were simple glycosuria. The direct causes of death are digestive disorders terminating in dyspnoëic coma or marasmus, or some intercurrent disease. Phthisis rarely supervenes.

To recapitulate: diabetes mellitus probably does not occur in nurslings; that in children under twelve years it almost invariably terminates fatally; that non-diabetic glycosuria is relatively more frequent than generally supposed, and that the majority of reported cured cases are probably simple glycosuria.—*Archives of Pediatrics*, August, 1904.

C. Sigmund Raue, M.D.

SYPHILIS HÆMORRHAGICA NEONATORUM.—A most thorough *resume* and complete review of the literature of this important topic is given by J. H. Hess, who rightly says that since the discovery of various organisms in the blood of these infants before and after death makes a reconsideration of the entire subject necessary. The question naturally arises when we are confronted with hæmorrhages in the newborn, are they due to syphilis or to an infection? That syphilis alone may be the cause of these hæmorrhages seems fairly well established by the large number of cases reported in which evidence of secondary infection was wanting.

The *pathological findings* in syphilis are numerous and variable, including hepatitis, perinephritis, infiltration of the lungs, bone lesions, etc. The changes in the circulatory system, mostly of a degenerative and obliterating character, seem to bear some ætiological relationship to the hæmorrhages and extravasations.

It is a notable fact that in the later contributions to the literature of the

subject, micro-organisms were isolated from the syphilitic, as well as the non-syphilitic.

Hess concludes with the following remarks: "I believe that while most of our cases of spontaneous hæmorrhage in the newborn are cases of extrauterine infection through one of the many channels by a non-specific organism, others are directly due to the action of the syphilitic virus and its consequent changes in utero on the foetal vascular system and, therefore, true cases of 'syphilis hæmorrhagica neonatorum,' as illustrated by Mracek's series of cases. The other varieties are better classified as 'syphilis hereditaria,' with hæmorrhage due to secondary infection."—*Archives of Pediatrics*, August, 1904.

C. Sigmund Raue, M.D.

THE SHAPE OF THE CHEST IN HEALTH AND IN PULMONARY TUBERCULOSIS.—(Brown and Pope.)—The conclusions reached are:

1. The measurements of the normal chest up to this time have not been determined with sufficient accuracy to allow of very positive conclusions.

2. The influence of race, age, occupation and altitude must be considered when the normal chest measurements and relations are taken. The chief impression gained from this study is that the chest, which is subnormal in its diameter or supernormal in its length, is the chest more subject to pulmonary tuberculosis, though whether in many cases the disease, liability and shape of the chest are not both the results of the same condition and not casually connected, is an open question. Influences which tend to improve the development of the chest tend also to prevent consumption, and this may account for the relative immunity of the well-developed cases.

3. The antero-posterior diameter in health may be stated to be about 20.5 cm. at the level of the nipples, the transverse about 28 cm., giving an index of 73. In the early stages of pulmonary tuberculosis the antero-posterior diameter at the level of the fourth costal cartilage is 19.5 cm., the transverse about 27, giving an index of 72. In advance stages the figures are 19 cm., transverse 25, giving an index of 76.

4. The female chest shows a tendency to a lower index than the male.

5. The chest index is readily changed within certain limits in the individual.

6. The influence of pulmonary tuberculosis has some tendency to reduce the diameters of the chest, and it seems as if it also reduced the length.

7. The progress of the disease probably tends to increase the index, though further data are necessary before this can be confidently stated.

8. There seems to be some tendency for the chest in pulmonary tuberculosis to acquire a larger or smaller index, *i.e.*, to divide into two types, one flat (index 68 to 70), and one deep and round (index 78 to 80), but both reduced in size.

9. Dr. Hutchinson's index appears to be too low, his tuberculous index too high. For far advanced cases his tuberculous index is probably correct.

10. The relation of the diameters (*i.e.*, index) does not appear to have any prognostic value, as at either extremes there is no tendency in early cases of pulmonary tuberculosis to show an unduly large proportion of extreme indexes.

11. The change in indexes in pulmonary tuberculosis is probably not due to emanation, but to change in bulk of the lungs.—*The Medical Journal of the Medical Sciences*, October, 1904.

William F. Baker, A.M., M.D.

TUBERCULOSIS AND HEART DISEASE—NORRIS'S CONCLUSIONS.—1. In view of the frequency with which tuberculosis of the lungs has been found to be associated with valvular heart disease, we are forced to conclude that the latter exerts, if any, but very, very slight influence upon the former, either as an inhibitive or curative influence, even if satisfactory compensation be maintained. On considering the relative frequency of valvular lesions in general, mitral stenosis does not seem to be less often coincident with tuberculous disease of the lungs than other varieties of heart lesion.

2. It is doubtful whether the smallness of the heart predisposes to pulmonary trouble to a greater degree than is explainable by the general systemic under development and lack of resistance which such individuals often exhibit. It is a fact, however, that small hearts, either as a result of wasting or hyperplasia, are commonly found at tuberculous autopsies, while large hearts are often encountered in uncomplicated cases.

3. Stenosis of the pulmonary orifice seems to favor the development of tuberculosis; a very large proportion of these cases die of the latter disease.

4. Arterial and endocardial thickening are common results of tuberculous infection, but it is doubtful whether it attains a degree sufficient to produce valvular incompetency.

5. Tuberculous endocarditis and myocarditis occur very rarely, but pericarditis very frequently, particularly the chronic form.

6. Tuberculosis of the aorta is also a rare disease.

7. Fatty and fibroid changes in muscle are common, a fact which explains the failure of digitalis in these cases.—*The American Journal of the Medical Sciences*, October, 1904.

William F. Baker, A.M., M.D.

URINARY POISONING.—In an admirable clinical lecture, Blum gives a comprehensive statement of the subject. He divides the condition into: 1. Urinary poisoning from aseptic urine; (a) resorption of toxic material before passing the kidneys (uræmia); (b) after passing the kidneys (urotoxæmia). 2. Poisoning from septic urine (urosepsis).

Urinary poisoning is primarily observed in all conditions of partial or complete retention in any portion of the uropoietic system; but at the same time the mucous membrane must be in a condition making resorption possible, as when stasis is long continued with increased pressure and attending multiple lesions of the mucous membrane. After stasis exists a septic condition may be brought about by catheterization, proliferation of germs along the urethra, or through the lymph and blood channels from the contiguous bowel. The symptoms induced bear a certain similarity to acute poisoning by pilocarpine. Sometimes the conditions induced resemble the action of a single large dose of a poison, and again they simulate the action of repeated small doses of a poison with defective elimination. The full discussion of the symptoms cannot be even satisfactorily abstracted. One picture which the author well portrays is that presented in chronic urinary poisoning. Some of these patients have been ineffectually treated for gastro-enteric disturbances. Their appearance is cachectic; the skin is dry, pale, yellowish, but with no icteric staining of the sclerotic. The gastro-enteric symptoms are referable to defective glandular function. The mouth is quite dry; the tongue at first is pasty, but later red, clear and dry and deeply furrowed, presenting the "langue urinaire" of Guyon. There is complete loss of appetite, pressure in the

stomach after eating, nausea and vomiting. Constipation is usual, with diarrhœa in the septic cases.

All treatment must be attended by absolute asepsis. Catheterization is, of course, called for, but in some instances it is dangerous to remove all of the urine at once, but the quantity removed is to be replaced by half as much boric acid solution, and this procedure repeated on subsequent days until the bladder is entirely emptied. The residual urine is the harmful element, so that the retention catheter is sometimes called for. Daily irrigations with 2- to 4-per-cent. boric acid solution is also indicated until the septic condition is ameliorated. Internally, salol, urotropin or helmitol are recommended.—Volkmann's *Samml. klin. Vorträge*, No. 365.

Theodore J. Gramm, M.D.

THE PREVENTIVE TREATMENT OF PELVIC FLOOR LACERATIONS.—(J. C. Edgar.)—The preservation of the pelvic floor during delivery has been placed by some authorities as second in importance only to preservation of the lives of the mother and child. Edgar believes that deep lacerations are avoidable in ordinary normal cases. The great importance of avoiding laceration of the pelvic floor cannot be overestimated. It is well known that a large proportion of gynæcological cases owe their condition directly or indirectly to rupture of the pelvic floor muscles during labor. The statistics of the obstetric clinic at Halle show that with every known perineal protection, lacerations extended beyond the commissure in 21.1 per cent. of primiparæ, and in 4.7 per cent. in multiparæ. The three major causes coming into play are (1) Too rapid expulsion of the fœtus, so that tearing, instead of stretching, results; (2) Relative disproportion in size between the presenting part and the parturient outlet; (3) A faulty mechanism of labor, whereby larger circumferences of the head and shoulders than necessary pass through the parturient outlet. From an extended experience Edgar greatly favors preliminary stretching of the vulvar outlet in primiparæ, and especially elder primiparæ as a prophylactic measure. He urges its more extended use in cases where the outlet and lower third of the vagina are small and rigid. He has obtained surprisingly good results by passing two fingers, palmar surface down, into the parturient canal and making intermittent backward and lateral massage-like pressure. He prefers to use two fingers of one hand, rather than to use both hands. The assistance of anæsthesia is valuable. In fifteen or twenty minutes sufficient enlargement of the most rigid canal may be obtained. Since using this method he has rarely been compelled to resort to episiotomy. Of the latter operation Edgar says it is one for the novice in obstetrics. The greater the clinical experience the more infrequently will the operation be required. He delivers the head so slowly that stretching and not tearing of the parts results, and because the pelvic floor muscles are relaxed during the intervals of the uterine contractions the delivery of the head is more safely accomplished at this moment.

Cleidotomy or division of the clavicles in *dead* fœtuses as a preliminary to delivery of the shoulders has never taken its proper place in obstetric surgery as a valuable means of diminishing the maternal morbidity and mortality. He refers to the delay often witnessed in the delivery of the shoulders in generally contracted pelvis after perforation and extraction of the head. As a routine practice in these cases he divides the clavicles, and it is amazing how the diminution of the bisacromial diameter renders the subsequent extraction of the shoulders a comparatively easy task.

Respecting the delivery of the shoulders, he believes that the posterior shoulder is often responsible for many deep lacerations, and also that lacerations started by the head are often increased and rendered serious by subsequent passage of the shoulders. He refers to the scant attention given by writers as to which shoulder is to be first delivered. According to his own observations, when the head was lightly supported, the posterior shoulder is born three times as often as the anterior in 69 primiparæ, and two and a half times as often in 68 multiparæ. His method of shoulder delivery is to delay the shoulders, if possible, until nearly complete rotation of the bisacromial diameter has taken place. The foetal head is then gently raised or pushed so as to bring the anterior shoulder well up behind the symphysis, thus bringing the cervico-acromial diameter at the outlet, instead of the bisacromial. The posterior shoulder is then allowed to pass spontaneously, and whenever possible manual extraction should be avoided since this increases the risk of perineal rupture. Delivery may be safely assisted by slowly flexing the forearm and arm through the vulva and thus delivering the posterior shoulder by slight traction on the posterior arm. If this be impracticable, gentle traction upon the head is preferable to traction with a finger in the axilla. If delivery of the anterior shoulder be delayed, this is best remedied by making traction downward, with the hands placed at the sides of the head, and being careful to avoid excessive pressure on the perinæum. As a last resort traction may be made by a finger in the axilla.—*Amer. Jr. Obs.*, vol. 50, 49.

Theodore J. Gramm, M.D.

A PECULIAR FORM OF NODULAR ADENOMA OF THE VULVA.—Pick has described two cases of small tumor formation upon the labia majora. In one instance a presumably similar tumor had been previously removed, but was not examined. That this peculiar formation is quite rare may be inferred from Pick being able to find but four other recorded cases. One of the latter cases came under the observation of Schickele, who examined and described it carefully. He regarded it as a derivative of the Wolffian duct, but his illustrations closely resemble those of Pick's cases. Pick regards these tumors as representing a genuine hidradenoma or tubular hydrocystadenoma, and as indicated by the name are derived from the sweat glands. Their structure represents multiplications of the histological formation of the latter glands. Pick describes these tumors as wartlike growths, varying in size from that of a pea to a cherry, which may appear singly or multiple upon the larger and smaller labia in women between 35 and 45 years old. Their surface is smooth and normal, or reddened skin overlies them, sometimes containing fine hair. They are not separable from the superimposed skin but are movable upon the underlying structures. Examination reveals them to be composed of an adenomatous formation, extending from the corium to the subepithelial fatty connective tissue, and they are surrounded by a fibrous capsule which, however, is absent where a connection with the epidermis is retained. The epithelial lining of the tubes is similar to that of sweat glands, and is composed of a cellular arrangement like that of the secreting portions of the glands, namely, a single layer of sharply defined cylindrical cells whose nuclei are situated toward the base resting upon a layer of muscle cells; sometimes also like the sudorific gland ducts, that is, a double row of cubical cells. The contents of the channels is a genuine secretion, and not due to a degeneration.

Some round-cell proliferation exists in the capsule, and especially under the epidermis. The tumors are not regarded as malignant.—*Arch. f. Gyn.*, Bd. 71, 347.

Theodore J. Gramm, M.D.

THE FORCEPS IN BREECH PRESENTATION.—Andrea (Milan) has reported his results in the management of 261 cases: 59 were delivered by means of the blunt hook; in 54 the lower extremities were brought down; in 32 the forceps were applied, and the remaining 116 were delivered either spontaneously or by means of digital traction in the groin or prophylactic delivery of the extremities. In view of his results the author wishes to diminish some of the objections to the use of the forceps in these cases, such as easy slipping off of the instruments, their inefficiency, dangers to the fœtus and so forth. His results cannot be said to be bad in the 32 cases: the perinæum was lacerated four times, two children died during delivery, and two others shortly thereafter from hydrocephalus and from the results of asphyxia; the rest remained well. The indications for the forceps were furnished in almost all the cases by failing labor pains and weakness of the mother, as also dangers to the children. They were only used after previous failure of digital extraction. They were mostly applied in the bitrochanteric diameter diagonally to the pelvis. The upper portion of the blade should extend but little above the iliac crest, that is, in the space between the femur and the pelvis; and at the pelvic outlet the instruments should be removed. The forceps slipped off only once; there were no injuries to the fœtus. On the other hand, the results from the blunt hook were not brilliant: there were six fractures of the femur, and two children were born dead. In the cases treated by delivery of one leg six children died, but no fracture occurred.

Forceps operation favorably competes with other methods of extraction; it is especially indicated when the breech is fixed in the upper part of the pelvis. No rotary motions are allowable. Prophylactic delivery of one leg is only exceptionally called for, namely, in contracted pelvis, prolapse of the cord, and in eclampsia.—*Abs. Centralbl. f. Gyn.*, 813, 1904.

Theodore J. Gramm, M.D.

THE PREVENTION OF FEVER DURING THE PUERPERIUM.—Some discussion has been excited by Zweifel's suggestion (Abstracted in *HAHNEMANNIAN MONTHLY*, September, 1904, 708) to remove the blood clots from the vagina shortly after delivery for the purpose of preventing their disintegration, from which general infection and elevated temperature may arise. His idea is to apply the general surgical principle of dry asepsis to puerperal cases. Müller (Munich) seems to fully coincide with Zweifel, and says he has steadfastly adhered to the vaginal douche, and, indeed, has further applied the method by using an irrigating curette in obstetric cases.

Bockelmann, on the other hand, critically examines Zweifel's views. He says it is not proven that the latter's good results are alone due to the intervention suggested. It is also incomprehensible why a febrile puerperium, apparently insignificant in the beginning, but advancing progressively to a fatal end, should arise from spontaneously infected blood clots in the vaginal vault. The fact is that our means of diagnosis are not able to recognize with certainty fatally infected cases in their beginning. But even should further experience demonstrate the danger of the coagula, obstetricians would abstain

from following Zweifel's suggestion. It cannot be too often pointed out how questionable it is to transfer surgical principles unmodified into obstetric practice, and the surgical principle of absolute removal of blood has given the impulse to Zweifel's present suggestion. This dry asepsis is to be instituted in the vagina of the recently delivered woman. The author then referred to the physiological reasons why this is impossible, and in private practice, where possibly most called for, would be impracticable. Here most serious consequences would attend its attempted introduction, and morbidity in the puerperium instead of diminishing would rise rapidly. Furthermore, this exposure of the vagina and the separation of newly adhering wounds one hour after delivery would be associated with danger of infection. Instead of looking upon Zweifel's proposal as a decided advance in the prevention of puerperal fever, the author regards it as the most ominous retrocession in obstetric antisepsis occurring in recent years. "Most of us have long ago become convinced that all endeavors artificially to obtain a primary asepsis of the genital canal of the parturient, by means of prophylactic disinfection, rests upon well intentioned false teaching, so that we must regard the recently delivered one as a *noli me tangere*. Nature most certainly does more than we think, not by means of mythical protective measures and antitoxins, but by providing that the freshly occurring lesions of the genital tract adhere more quickly than the existing germs can attain to a dangerous development; this self-evidently is only true of the germs already in the genital canal, and does not apply to those of greater virulence introduced into fresh wounds." He refers to the rapid adherence of fresh tears of the perinæum within a short time, and concludes that two rules will hold good for all time: The strictest asepsis of everything coming into contact with the genital tract of the parturient; and the avoidance of every, not absolutely necessary, handling of the genital canal of puerpera. Whatever is more than this is of evil.—*Centralbl. f. Gyn.*, No. 26, 1904.

Theodore J. Gramm, M.D.

THE MECHANISM OF ACCOMMODATION IN MAN.—The writer gives the result of examination under atropine and, later, eserine, of a patient with congenital abscesses of the iris and a small "chalk mark" at the anterior and posterior pole of either lens; this subject was ideal for the study of the two theories of accommodation, that of Helmholtz and of Tscherning. The former claims that increased curvature of the lens is produced by relaxation of the zonula, due to contraction of the ciliary muscle; the latter, that it is produced by tension of the zonula, similarly produced.

The author's investigation, carried out with the retinoscope, the corneal microscope, and the reflex images of Ganson-Purkinje, show that the anterior surface of the lens changes its spherical curve into that of a cone during accommodation. The second feature is a decided tremor of the lens, coming on from five to ten minutes after the instillation of eserine, proving that the zonula has slackened and, as Hess has shown, that the pressure in front and behind the lens must be the same during the height of accommodation. Third, the ciliary processes make a centripetal movement toward the visual axis, but do not move toward the cornea. Fourth, the circumference of the lens at its equator remains perfectly circular, but decreases considerably. Fifth, the antero-posterior diameter of the lens increases by fully one-third. Sixth, the

anterior surface of the lens approaches the cornea, but the lens itself does not move forward. In a condition of rest the posterior surface of the lens was practically spherical; after eserine, an increased curvature of the central portion of this surface, with flattening of the peripheral portion, appeared. Karl Grossman, Liverpool.—*Ophthalmic Review*.

William Spencer, M.D.

NON-OPERATIVE RELIEF OF EYESTRAIN FOR THE POSSIBLE CURE OF EPILEPSY AS TESTED IN SIXTY-EIGHT CASES AT THE CRAIG COLONY.—Dr. George M. Gould tested at Craig Colony 78 out of 800 patients. The majority of the cases were young, middle-aged men and women, regardless of the condition of epilepsy. The examination was the routine one, conducted as follows: Thorough paralysis by homatropine, muscle imbalance tested, ophthalmoscopic examination, refraction errors measured objectively by retinoscope, subjective examination.

The variety of refractive errors was large: 50 per cent. unsymmetric astigmatism, 20 per cent. myopic astigmatism, 80 per cent. hypermetropic astigmatism, 22 per cent. normal after correction, 44 per cent. with $\frac{2}{3}$ or less, vision after correction.

The results were varying, some had more attacks after wearing the lenses, some fewer. There was one arrest in which cure seemed probable. Five cases already arrested seemed to have the cure sustained by the use of the glasses. There was a decrease in the number of attacks in 11 cases. A few showed improvement immediately after wearing the glasses, but the decrease did not last. A large number (64 per cent.) had an increased number of attacks after wearing the lenses. Seizure variations in epilepsy are frequently marked, however. In 16 cases there was no change in the number of attacks. To the author this experiment seems only to furnish additional proof that in looking for the causes and cure of epilepsy we must consider more than a single organ and its abnormalities. We must include the entire body and all its parts, especially those of unstable consistency that are subjected to constant alteration and changes in composition.

In an addendum to this article, he construes the data to a favorable conclusion as follows: That 19 patients whose attacks were lessened had three months prior to lenses 861 attacks, three months following the lenses 479 attacks, a decrease of 44 per cent. William P. Spratling, M.D.—*American Medicine*.

William Spencer, M.D.

THE ASSOCIATION OF CATARACT WITH UNCINARIASIS, OR HOOK-WORM DISEASE.—The writer gives the clinical histories of a number of cases of cataract occurring during the course of the hook-worm disease, and where the opacity of the lens began after the establishment of the general disease. The author believes the development of the cataract is due to the disturbance in nutrition of the lens, dependent upon the impoverished condition of the blood which is present in cases of uncinariasis, and adds that if this disease predisposes the patient to cataract, the hook-worm becomes a subject of as much interest to the ophthalmologist as to the general practitioner, for in the victim of uncinariasis cataract might become one of the preventable diseases, since it (hook-worm disease) is so rapidly and surely cured. A. W. Calhoun, M.D.—*Ophthalmic Record*.

William Spencer, M.D.

EYESTRAIN CONSIDERED AS A FACTOR IN THE PRODUCTION OF LATERAL CURVATURE OF THE SPINE.—Every ophthalmologist is familiar with the fact that astigmatic patients, when one or both axes are oblique, and patients having vertical heterophoria, are apt to tilt the head to one side in order to obtain clearer vision. Also, there have been reported some cases of torticollis in which there has been a marked improvement in attitude after correction of the refractive error and relief of any existing vertical heterophoria. It has been my lot to see a number of cases of lateral curvature of the spine in which eyestrain seemed to play a part in producing the condition. In two of these cases there was a progressive myopia, and not only did relief from eyestrain seem to cause a marked improvement in attitude, but, when the curvature had been corrected by appropriate exercises, the myopia stopped increasing. Also, in one of these two cases the vision improved to an unusual degree after correction of the spinal curvature and improvement of the general nutrition. The cases are too few in number to permit of dogmatizing on the subject; but I think that the results justify my belief that there is in some cases, at least, a connection between eyestrain and spinal curvature.

The writer describes briefly three cases which he considered typical: In these patients eyestrain has acted as an indirect factor in the production of spinal curvature by inducing a faulty attitude; when the curvature had become established, the stooping position caused the patients to approach the eyes too near the desk and caused an increase in the myopia. Henry W. Kilburn, M.D., Boston.—*Annals Ophthalm.*

William Spencer, M.D.

DISEASE OF THE MYOCARDIUM.—(Jackson.)—In heart diseases there is suffering only when the myocardium becomes involved. Many with "heart disease" have no valvular lesions. Diseases of the myocardium are acute and chronic. In most acute cases depending on bacteria there is found fatty or granular degeneration of the heart muscle. The cardiac weakness of diphtheria, scarlet fever is absolutely curable. As a rule, dilatation cannot be certainly diagnosed by percussion. It would be found oftener in infectious cases if sought for with care. It is probably due to muscular degeneration. Abscesses may be found in the myocardium in general septicæmia. Acute malignant myocarditis is not rare. The acute forms of myocardial disease, except abscess, may present only symptoms of the primary disease, but in more severe form. In chronic disease the symptoms are those generally classified under "heart disease." The size of the heart having been learned by percussion, the character of the pulse and the presence or the absence of chronic passive congestion will determine whether enlargement is due to hypertrophy or dilatation. In many cases of myocardial disease there is a mitral regurgitation without disease of the valve. Diagnosis depends on the absence of diseases, which usually lead to a mitral endocarditis and the presence of signs causative of myocardial disease. Post-mortem, the heart is found enlarged, due to fibroid change. Myocardial disease may arise from sclerosis of the coronary arteries, from general arterio-sclerosis or, rather, the toxæmia causing this, from renal disease, alcohol, hard work.—*Boston Medical and Surgical Journal*, September 29, 1904.

William F. Baker, A.M., M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

CAN LEPROSY BE CURED?—The case reported by Milton Rice, M.D., of Hilo, Hawaii, in *Medical Advance*, is very suggestive of an affirmative answer to this question. The type of the disease was the maculo-anæsthetic and the diagnosis was confirmed. Under sulphur, phosphorus and plumbum, the wasted useless hands became useful members, the corneal ulcers healed, the emaciation disappeared, the anæsthesia almost passed away, as did the scaly condition of the skin. And all this was accomplished within a period of six months. Dr. Rice used the high potencies. He has no pet remedies, but prescribes according to the needs of each case. Sulphur, arsenicum, mezereum and phosphorus have been the most frequently prescribed remedies in leprosy.

THE PATHOLOGIST AND THE SYMPTOMOTOLOGIST.—We like the tone of the editorial upon this subject in September *Medical Advance*. The editor has observed the strife between the pathologists and the symptomotologists at the various meetings of our societies, and regrets that there should be this antagonism. Pathology furnishes us with general knowledge only. No matter how deeply it may go into particulars, it is only a general knowledge applicable to a class. It does not furnish us with the kind of knowledge necessary to the selection of the homœopathic remedy. It simply puts the patient in a class with other patients, and so points the way to a *group* of remedies, rather than to any single remedy. Symptomatology, in the usual meaning of the term, does not furnish us with the kind of knowledge necessary to diagnosis or prognosis, nor for the determining of the dividing line between medicinal therapeutics and surgery or other mechanical means. It furnishes us only with the characteristics of the individual case, and hence simply points out the needed remedy. The exclusive pathologist is therefore apt to let nature fight out the disease, unaided by the true remedy. The exclusive symptomotologist, on the other hand, is apt to neglect those major signs which show unerringly the need of a timely resort to surgical and mechanical modes of treatment. A little of both kinds of knowledge is best.

APOCYNUM CANNIBINUM.—The recent experiments of Dr. H. Wood, Jr., show that in the apocynum we have a circulatory stimulant of great power belonging to the group of digitalis-like substances. The usefulness of this drug in practical medicine is very markedly lessened by its irritating effect

upon the stomach. We are all familiar with the nausea and vomiting which it produces and which interferes greatly with our use of its diuretic properties in cases of dropsy and œdema. The experimenter is engaged in a new series of experiments, and hopes to be able to eliminate the irritant principles and to present a crystalline substance to the profession which shall represent the physiological virtues of apocynum, minus its irritating properties.

THE CAUSE OF APPENDICITIS.—H. A. Parkyn, M.D., in *Suggestion*, advances the theory that the first cause of appendicitis is insufficient drinking of water. It is found principally in persons of sedentary habits, who do not perspire freely and who do not drink water in sufficient amounts. For a person who is enjoying good health, all that is necessary to keep him from appendicitis is to drink from one to two quarts of water daily. All food should be well masticated, and the two quarts of water, either hot or cold, should be taken slowly during the day.—*Medical Counselor*.

THE IODIDE OF POTASH.—Dr. S. R. Geiser, in *American Physician*, writes, in a somewhat different way, of potassium iodide and its various uses. The iodide, even in small physiological doses, sometimes produces depression of both mind and body, so that even moderate exercise is followed by great fatigue. The "all-the-time-tired feeling," such as found in aletris and other remedies, becomes, in the case of the kali, a tiredness of both mind and body. While it would seem probable that patients charged with both syphilis and mercury will stand large doses of iodide of potassium, still it has been repeatedly claimed that many patients have been irretrievably reduced in strength and health by the enormous doses given solely upon suspicion and, indeed, for diagnostic purposes. As with mercury, the pains and disorders that yield to kali, are marked by nocturnal increase of suffering, whether it be syphilis, rheumatism, scrofulosis, or the preliminary phenomena of rachitis. Speaking of rachitis, Dr. Geiser points out, as the preliminary phenomena of that disease: Profuse sweating about the head and upper portion of the chest; a great desire on the part of the child to keep cool and to kick the bed-covers off even in cold weather; and a most painful sensibility of all parts of the body. This general hyperæsthesia of rachitic children often simulates rheumatism, the child cannot bear touching, is too weak to stand or to walk, and cannot sleep. Perspiration is profuse about the head and upper portions of the chest. Calcareæ carb. would be thought of in such cases, perhaps, but the iodide of potassium in minute doses is probably one of our best remedies. This is an indication or a picture of the remedy that cannot help but be of frequent service. For asthma, kali iodatum has long and frequently been called into service as a remedial agent. It is of special value for this disorder, as it occurs in young people. The persistent use of the drug will thoroughly eradicate the disorder. The author mentions some cases of asthma in young boys and gives as his indications for the prescription: 1. One of the generalities of the drug, emaciation. 2. After the attacks there remained a cough, as though the patient would run into consumption. 3. Early morning aggravation of the asthmatic attack. 4. The cool, afebrile condition of the patient. Kali iodatum produces, in toxic doses, profuse, watery, acrid coryza; and is very useful in catarrhal colds and coryza, especially when there is associated marked pain in the frontal sinus. This latter symptom differentiates it from arsenicum. In the catarrh of the respiratory tract for which kali is suitable,

we find a freer secretion and much less fever than in other remedies. The kali patient has not much febrile excitement.

SCYLLA AND CHARYBDIS.—Under this unique title, Dr. W. E. Boynton discusses the extreme conservatism of some members of our school, and also that not rare radicalism which almost denies that anything can or has been accomplished by internal medicine. Of course, there must be a scientific, a rational, a common sense medium between these two extremes. Internal medicine, local antiseptics and surgical interference, each has its field of usefulness, its scope and its limitations; neither is a method complete in itself and independent of the others, but each is equally valuable in its proper sphere, that of an adjuvant to the other two, and all three as aids, not substitutes for natural processes.—*Medical Century*.

OUR SCHOOL OF MEDICINE IS PERMANENT.—Oscar K. Richardson, M.D., in *Medical Century*, thinks that our school of medicine is permanent. The only question that concerns us at the present time being this: Will its members stand by the colors or desert those principles and truths which we have upheld so valiantly for over a century, and which to-day need no further proof? There can be no more pitiable object than the deserter from the ranks. He is an object of disgust and ridicule to both friend and foe. Homœopaths must exist as a separate school for several reasons: 1. *Similia similibus curantur* is true. 2. Our institutions, State and otherwise, are numerous and in a flourishing condition. 3. Personal self-respect demands it. This so-called amalgamation idea is ridiculous. There is as much difference to-day between a homœopathic prescription and a physiological recipe as there ever was. The author makes a good point when he says that the dear public have grown tired of the discussion between the schools, the public cannot be depended upon to carry the burden much longer. They are more interested in results than in sentimentalism. It is up to the physicians of our school to give them "results" that will justify them in employing a homœopathic doctor in preference to any other sort.

IRIDIUM.—In the October number of *North American Journal of Homœopathy*, Dr. W. W. Christian reports further experiences with this remedy, some of which are unusual and very suggestive of its wide scope of usefulness in practice. In the advertising pages of the same journal appears the "ad." of The Platinum Company of America relative to this "new" medicinal substance. Here we read: "Iridium, as a medicinal agent, was discovered in the laboratory of this company in 1902." This may have been its first appearance in the laboratory of the platinum company, but, nevertheless, the fact remains that it was introduced into the homœopathic materia medica and into homœopathic practice by Hering in the year 1853. It was triturated by Boericke and proven by Tafel. In the *Revue Hom. Française* of February, 1892, M. Laboucher had an article upon this remedy; so we guess this is another case of working over old mines. Dr. Christian's investigations are most excellent. He has had good results in cases of anæmia, in the nephritis of pregnancy, in cancer and in ozæna and catarrh. It has seemed to be of benefit in lupus vulgaris and similar forms of skin affections, while in eczema it was not curative. Altogether this interesting resume of clinical experience with iridium in potency goes to show that the remedy is a very active one, and quite worthy of careful proving upon the healthy to determine its sphere of curative action more definitely.

THE HAHNEMANNIAN MONTHLY.

DECEMBER, 1904.

THE PRESENT STATUS OF THE SURGERY OF THE STOMACH.

BY WILLIAM B. VAN LENNEP, A.M., M.D., PHILADELPHIA.

(Read at the Annual Meeting of the Homœopathic Medical Society of the State of Pennsylvania, Easton, Pa., September 20, 1904.)

It has been aptly said of the stomach that the œsophagus is the feeder; the dome, the hopper; the pyloric end, the grind-stones; while the outlet extends through the duodenum, down to the point where the biliary and pancreatic fluids change the acid reaction and mark the beginning of the intestine. This make-up is not unlike the male urinary bladder and its "surgical neck," the deep urethra, and here, too, as in the bladder, the *storm-centre* is usually about the outlet, lesions in the fundus of either being to a great extent latent. Again, as in other hollow organs, this dome frequently compensates and overcomes obstructions, while restriction to a liquid diet, voluntary or enforced, permits of stomach absorption and an easier entrance into the intestine, often lulling the patient and physician into a false sense of security. To carry the simile still farther, just as in the bladder, permanent drainage and radical operations upon the obstructed outlet are taking the place of the catheter and the syringe, so in the stomach kindred excisions and anastomoses are supplanting the palliative stomach-tube and douche-bag.

Taking ulcer first, the earliest if not the most frequent surgical lesion, it should be said that by no means all ulcers call

for operative intervention. The acute form, for example, probably anæmic in origin, and met with in young, chlorotic females, tends to spontaneous cure under appropriate treatment, and only exceptionally do perforation or hæmorrhage require such operation as will be shortly described.

The chronic variety, the ulcer thought to be dependent upon hyperchlorhydria or mechanical injury to the *grinding* portion, is the one that particularly interests us. It usually assumes this character from the beginning, although it may follow the subsidence of the acute form and may develop active exacerbations. One point in particular should be borne in mind, *i.e.*, that chronic ulcer is liable to deceptive ameliorations, with or even without treatment, and patients should therefore be observed over considerable periods of time before being assured of a cure. In a most excellent *resumé* of the subject of gastric ulcer, Bartlett states that if the symptoms persist after eight weeks of local and general rest, carried out as he describes in detail, the surgeon should be called in. (HAHNEMANNIAN MONTHLY, September, 1903.) This is safe advice so long as the case is under the care of the one physician and for the initial manifestations, but such patients are prone to roam from one to another, so that the relapses cannot be compared, and, besides, each aggravation increases the danger of fatal or crippling complications. For these reasons many believe that this time-limit should be cut down by one-half and such treatment only instituted in the absence of obstruction or distortion.

Aside from this, the severity of the pain—the gastralgia—the degree of the dyspepsia and the location of the ulcer are valuable guides. Thus, pain to the back and in the supine position, relieved by leaning forward or on standing, suggest ulcer of the posterior surface; while superficial, distinctly outlined tenderness, with the reverse results from posture, point to the anterior surface. The prognostic value of such observations will be referred to directly.

The urgent indications for operation are hæmorrhage and perforation. Hæmorrhage from chronic ulcer is the form usually calling for surgical intervention, and then when the bleeding recurs after a short interval, usually with an aggravation of the gastric symptoms as a prodrome, and threatens the patient's life. Like genito-urinary stone and pulmonary tuber-

culosis, all gastric ulcers probably bleed at sometime during their course; often almost imperceptibly; again, in moderate quantity and at long intervals; exceptionally, fulminating and carrying off the patient before any aid can be given. Although it is often hard to decide just how long and how profusely a patient should be allowed to bleed, and although opinions differ as to whether one or two recurrences should be awaited, there seems to be no doubt as to the indicated remedy, *i.e.*, to splint the stomach by gastro-enterostomy, which will stop the hæmorrhage and allow the ulcer to heal.

Perforations will vary considerably in their results. On the anterior surface they are apt to be acute, sudden in their onset, producing more or less extensive extravasation, with the consequent, familiar symptoms of peritonism. In the so-called sub-acute form, there is the same sudden onset, but protective adhesions have time to plug the vent; the stomach is not so full, probably, or its contents not as septic. As a matter of fact, the normal, acid gastric fluids are more or less sterile and it is easy to make them completely so by cleansing the mouth, by lavage and the ingestion of aseptic fluids. Not so, however, with the stagnating contents of a dilated, obstructed stomach; tetany of varying severity is probably a somewhat common result and may be aggravated to a fatal degree by promoting absorption through washing, or by suddenly dumping the putrefying material into the small intestine through an anastomosis. Ulcer of the duodenum seems particularly prone to perforation, although the extravasation is often walled off; if not, the escaping fluids are apt to run down the lateral gutter and simulate acute appendicitis. The paroxysms of pain associated with these ulcers not infrequently mimic gall-stone disease quite closely, their delayed onset after eating and the absence of hæmatemesis throwing the attendant off his guard.

The treatment of acute and sub-acute perforation is, briefly, abdominal section, closure and inversion of the rent when found, or exposed if covered, a careful hunt for other openings, as ulcers are often multiple and on opposite surfaces, peritoneal toilet with supra-pubic or other drainage, as deemed best, and gastro-enterostomy if the suture has produced a constriction, or if other active ulcers are recognized or *suspected*. Chronic perforation is especially met with on the posterior surface and

produces either a peri-gastritis with resulting adhesions to neighboring organs or the parietes, disturbing motility and distorting the stomach, or a fibrino-purulent peritonitis, an abscess in other words, which may become subphrenic (the *pyo-pneumothorax subphrenicus* of Leyden), may empty into neighboring organs or on the surface. The appropriate treatment would be

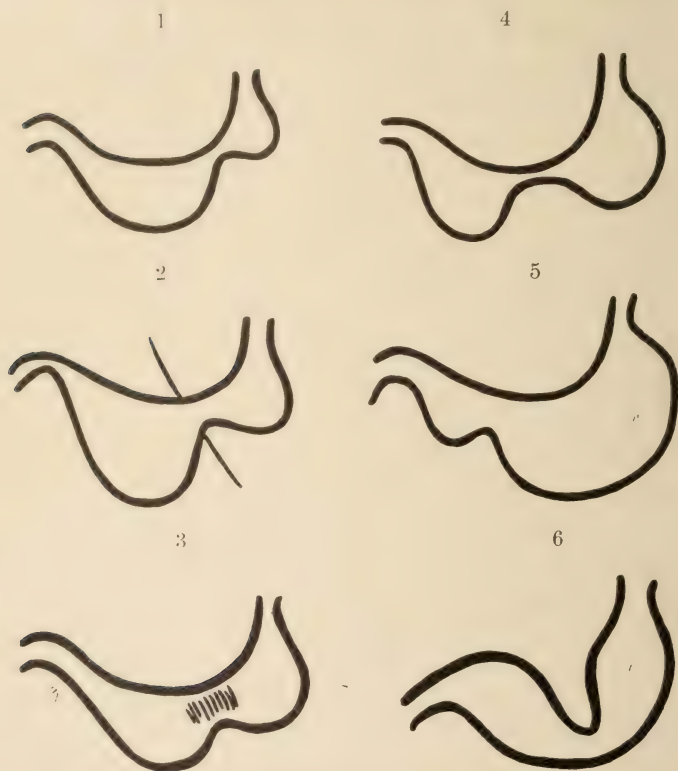


FIG. 1.—(Moynihan.) Types of hour-glass stomach : 1, Obstruction near cardiac end ; 2, cardiac pouch concealed by adhesions ; 3, growth in body of stomach ; 4, two pouches connected by a narrow tube ; 5, cardiac pouch largely dilated ; 6, lesser curvature pulled down toward the greater.

evacuation and gastrolisis, with closure of any exposed openings, but the danger of the adhesions reforming not infrequently calls for one of the anastomotic measures to improve drainage.

The non-malignant stenoses, either intrinsic in origin or from the adhesions just referred to, have led to a great deal of very interesting work. Without taking time to detail the plastic measures for the relief of the bifid, trifid or otherwise distorted

stomach,* the far more common stricture at the outlet is treated by enlarging the same, or by drainage from the most dependent point. In this class should be included the spasm and consequent hypertrophy of the pylorus, which is quite a constant concomitant of ulcer and which, through the resulting fibroid

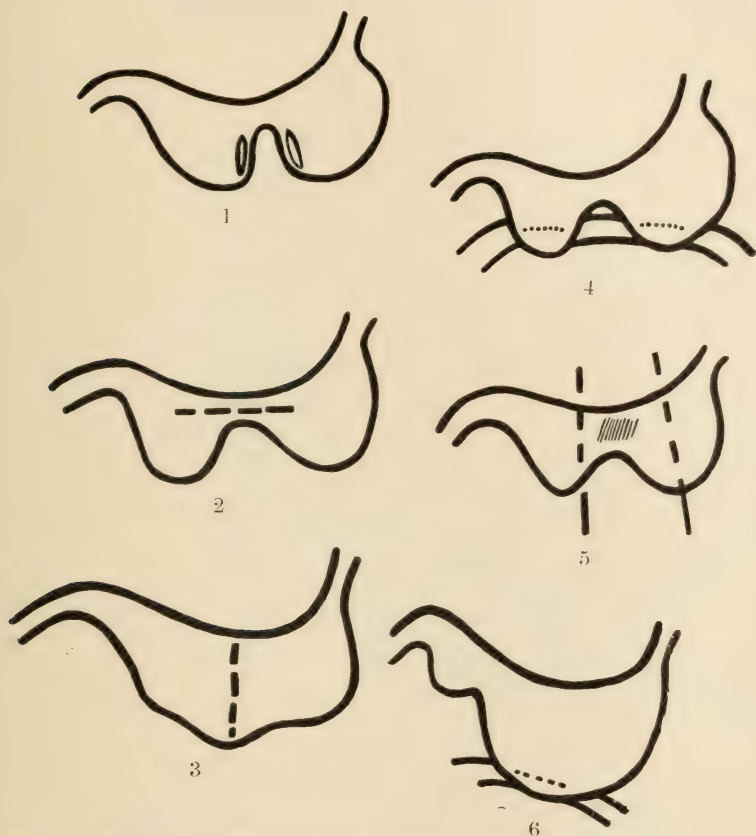


FIG. 2.—(Moynihan.) Diagram showing the operations for hour-glass stomach : 1, Gastro-gastrostomy ; 2 and 3, gastroplasty ; 4, double gastro-enterostomy ; 5, partial gastrectomy ; 6, gastro-enterostomy from the cardiac pouch.

changes, really amounts to a stricture. The familiar procedure of Heineke-Miculicz has given way to a wide anastomosis between the stomach and duodenum, a gastro-pylo-duodenostomy,

* "Hour-glass" stomach and the operative principles for its correction can be readily understood by glancing at Figs. 1 and 2 from Moynihan's brochure on "The Surgical Treatment of Gastric and Duodenal Ulcers," kindly loaned by the publishers, William B. Saunders & Co.



FIG. 3.—Gastro-pylo-duodenostomy, modified from Finney. The stomach and duodenum having been approximated and steadied by the three loose sutures indicated, the apposed surfaces are united by a protective sero-serous, Cushing suture, the end being left long to be used later, as indicated in Fig. 5. An inverted U-shaped incision is then carried into the adjoining portions of the stomach and duodenum, the arch being completed through the pylorus. In a gastro-duodenostomy the last portion of the incision is omitted.

by an inverted U-shaped incision devised by Finney (Figs. 3, 4 and 5). Aside from a free opening, with less danger of subse-

quent contraction, the level of the pylorus is lowered and evacuation facilitated. Kocher's anastomosis between the stomach and duodenum (a gastro-duodenostomy) accomplishes practically the same result, except that the pylorus is eliminated and the opening is of necessity smaller.

In the presence of extensive, pyloric adhesions, when Kocher's method may still be used, or especially of active ulceration, it

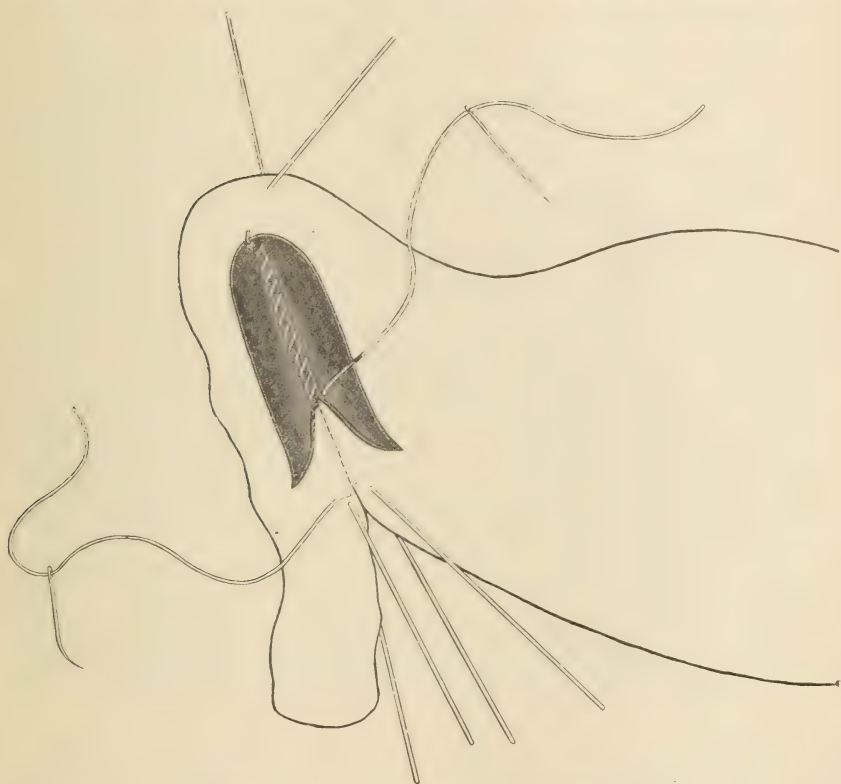


FIG. 4.—Gastro-pylo-duodenostomy (*continued*). The inner edges of the gastric and duodenal wounds are being united by a continuous or button-hole suture (the latter controlling the bleeding better), beginning at the pylorus or hollow of the inverted U. This is nearly complete.

appears better to divert the stream and give the stomach dependent drainage, so that gastro-jejunostomy has become deservedly popular and is best performed posteriorly, after the original method of von Hacker, by an unsupported suture, as in Abbé's lateral anastomosis. The steps of the operation can be readily understood from Figs. 6, 7 and 8, modified from

Scudder's excellent article on the technique of gastro-enterostomy (*Annals of Surgery*, September, 1904), but a few points in connection with the operation may not be out of place: The stomach should be opened at the most dependent point and the jejunum as high as possible. The latter prevents the sag and final giving away behind the resultant spur, duodenal peristalsi

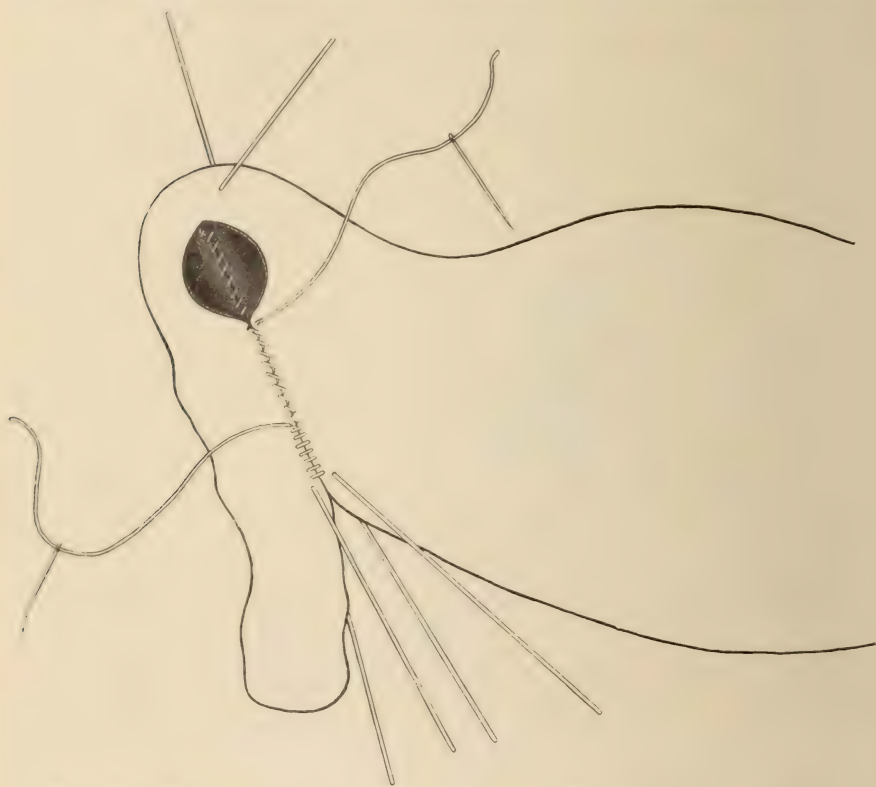


FIG. 5.—Gastro-pylo-duodenostomy (*concluded*). The continuous (or button-hole) suture is being carried back to unite the outer edges of the stomach and duodenal wounds, from the legs toward the arch of the inverted U. This is almost completed, and the protective sero-serous Cushing suture is being continued with the end left long in Fig. 3.

being weak, and this is one of the drawbacks of the anterior anastomosis in particular; Kocher's and Miculicz's plan of incising the jejunum transversely may further facilitate the onward flow, but limits the size of the opening.

The much discussed "circulus vitiosus," be it regurgitant or obstructive vomiting, appears to be less frequent in the absence

of the above-mentioned spur, even though this is supplemented by entero-enterostomy. Fowler's device of forcing the intestinal stream directly into the efferent gut by a silver-wire dam is ingenious and worthy of trial, but only if the kink cannot be

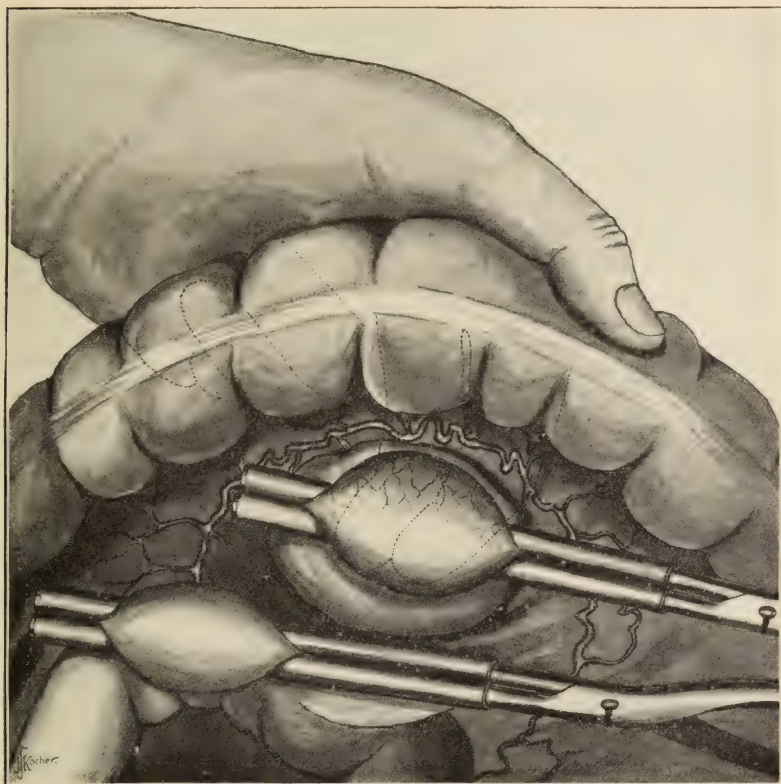


FIG. 6.—Posterior gastro-jejunostomy, modified from Scudder. The transverse colon has been drawn upward out of the abdominal wound, exposing the mesocolon; this is incised and torn through, avoiding large vessels, opening the cavity of the lesser peritoneum. The stomach is pushed into the opening by the fingers of the left hand, its posterior (presenting) wall raised from the anterior with mouse-tooth forceps and grasped by rubber-covered Doyen clamps, from left to right and from below upward, to an extent permitting of a two-inch or larger opening. The uppermost end of the jejunum is drawn tense and its free border clamped to a similar extent with another pair of Doyen forceps.

avoided; it simplifies the so-called Y-method (Fig. 9), provided the wire causes no remote mischief. Instead of the encircling ligature, an excellent plan is to turn in the afferent loop, beyond the entero-anastomosis, with sutures, until its lumen is com-

pletely occluded. This can be advantageously combined with Luecke's method of twisting the jejunal loop, so as to secure peristalsis in the same direction on the part of both the stomach and the efferent intestine (Fig. 10).

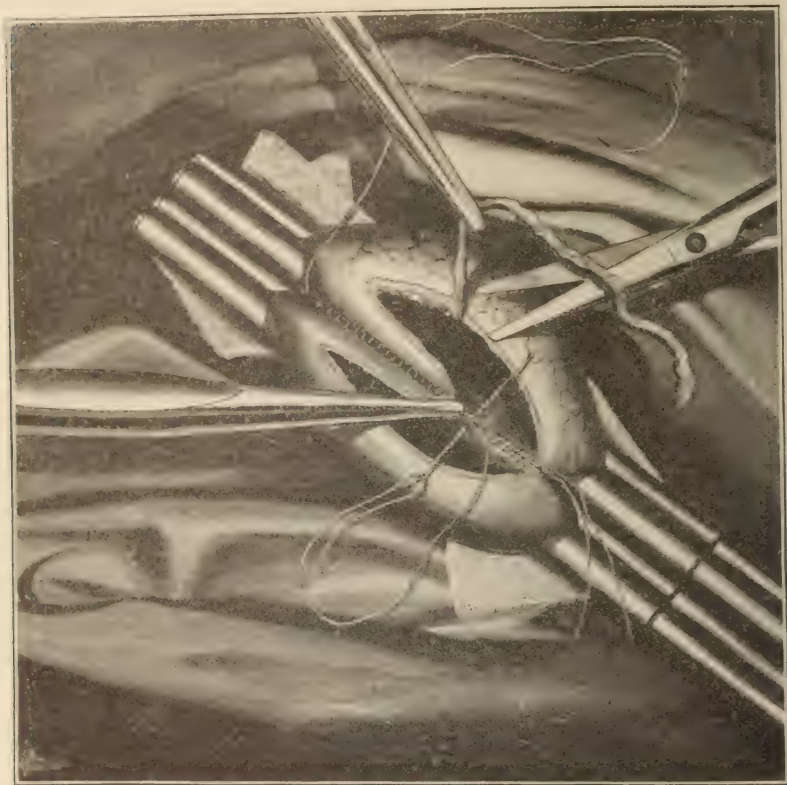


FIG. 7.—Posterior gastro-jejunostomy (*continued*). The stomach and intestine have been returned to the abdominal cavity and protected by sterile gauze pads, to which out-hanging tapes are attached. A strip of the same is placed behind the clamps as they are laid alongside of each other. The stomach and jejunum are then united by a protective, sero-serous, Cushing suture, the ends being left long; they are opened by parallel incisions of equal length; the "pouting mucous membrane trimmed off, in one strip if possible, from either opening, and the adjoining edges of the wound whipped together with a through and through continuous or button-hole suture. These different steps are indicated as being completed or going on at the same time.

The occurrence of peptic ulcer in the jejunum close to the anastomosis, like the ulcers met with in the duodenum, appears to be dependent upon the action of the acid gastric secretions, increased as they are by the presence of ulceration. It may

prove to be true, as claimed by Roux, that in an anastomosis close to the origin of the jejunum, the biliary and pancreatic fluids will be able to neutralize this hyperacidity.

As to the permanence of the anastomotic opening, Nature's

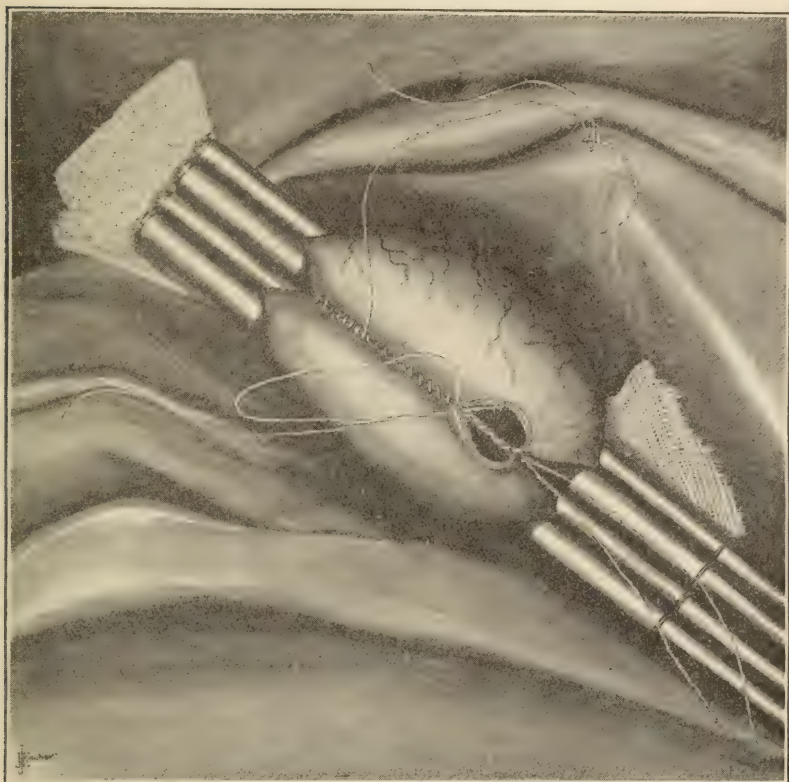


FIG. 8.—Posterior gastro-jejunostomy (*concluded*). The through and through suture has been continued around to draw together the outer edges of either opening and is nearly completed.

The sero-serous, Cushing suture, occluding the former, is represented as having been begun with one of the ends left long in Fig. 7. Both are tied at their points of starting. The clamps are removed; any bleeding points controlled by interrupted sutures; the gauze strip pulled out and the posterior aspect of the anastomosis examined and treated in like manner if necessary. After cleansing, the parts are restored to their normal position and the abdomen is closed.

rule concerning fistulæ seems to hold good, for this will persist in the presence of pyloric obstruction, while it will invariably contract, whether large or small, in its absence.

Compared with the gastro-duodenostomies of Kocher and

Finney, the latter, though ideal, do not so far appear to have the same healing effect upon active ulceration; the stomach may not be as completely "splinted," for they do not stop bleeding, and the ulcer-bearing area has to be traversed by the food. While they may drain then, they do not as completely divert.

Excision of the ulcer-zone as suggested by Rodman is radical, precludes the possibility of cancer-grafting on an ulcer-base (the *ulcus carcinomatosum*) and by the simplified technique, to be referred to shortly, appears perfectly feasible. Whether we can dispense with the "grindstones," scarred although they be, remains to be seen.

The surgical treatment of gastric cancer represents the cul-



FIG. 9.—Diagrammatic illustration of the Wölffler-Roux Y-method to prevent regurgitation of biliary and pancreatic fluids.

mination of the work upon the stomach, and when we realize that this organ is the most frequent seat of such growths, the importance of the subject must impress every one. With an accurate anatomical knowledge and a simplified, rational, operative technique, we are practically in the same position as in uterine and breast carcinoma, *i.e.*, success depends upon early operation. Considering the universal mortality of the disease, if left alone, and the prohibitive death-rate if operated too late, exploratory incision is the only reliable diagnostic resource, and it is our duty to educate the public to resort to this when the clinical signs point to cancer or even lead to a reasonable suspicion of its presence. Such an incision has been aptly termed by Mayo-Robson "the minor abdominal section," and permits

of digital and even ocular exploration. In the presence of inoperable disease, the opening can be firmly closed by a non-

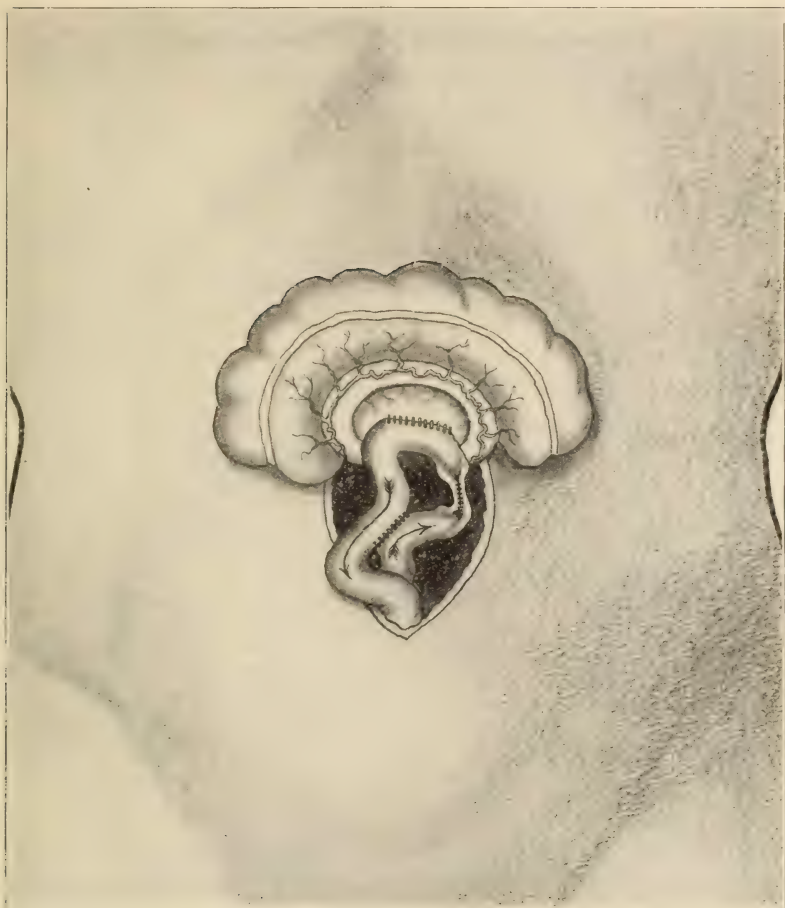


FIG. 10.—Posterior gastro-jejunostomy, as in Figs. 6, 7 and 8, except that a spur or kink is shown.

(a) The jejunal loop is twisted to make the direction of the gastric and intestinal peristalsis correspond (latter indicated by arrows).

(b) Entero-anastomosis by suture, like the gastro-jejunostomy, between the free edges of the afferent and efferent loops, a short distance below the stomach opening.

(c) Occlusion of the afferent loop, by longitudinal, continuous sutures, layer by layer, beyond the intestinal and behind the gastric anastomosis, to prevent bile or pancreatic fluid from reaching the stomach.

absorbable suture to avoid the bed-confinement which so often precipitates the end.

Given a patient of the cancer age who from unknown cause loses appetite and flesh and suffers from an indigestion which does not promptly yield to treatment, and a reasonable suspicion is established. Given, again, a patient of the proper age who apparently relapses after one or more attacks of gastric ulcer, and the possibility of cancerous implantation should again arouse the observing clinician. The geography of ulcer and cancer are the same, and the sequence is sufficiently frequent to be of suggestive value. As, fortunately, three-fourths of gastric cancers are in the neighborhood of the pylorus, one of the earliest symptoms to attract attention will be disturbance of gastric motility and stomach dilatation. Add to these the history of previous ulcer, perhaps, and the general symptoms above mentioned, together with the appropriate age, and the suspicion closely approaches conviction. I have purposely referred to clinical observation and have omitted mention of laboratory findings, chemical and microscopic; for while in a general way excess of hydrochloric acid stands for ulcer, and a low value of the same suggests cancer, as far as successful surgery is concerned, they have been shown to be of use only when the case is hopeless.

Many think that to diagnose gastric cancer a tumor must be felt, and years ago we learned the dictum that the recognition of a tumor precluded operation. If such a tumor be immovable, if it involve the body of the stomach, if jaundice and ascites be present, with enlargement of the liver, or hepatic and even supra-clavicular nodes, then, of course, it is true. But a small pyloric tumor may sag into view, so to speak, and not only give us a good operative prognosis, but also be *almost* pathognomonic. Almost pathognomonic because inflammatory thickening around an ulcer may produce a tumor which often cannot be distinguished from cancer even after the abdomen is opened, except that it is less hard and nodular. Such a tumor, too, may be associated with enlarged lymphatics, which closely resemble those infiltrated by malignant disease. It is these so-called "sentinel" nodes, by the way, that sometimes serve as guides to a round or fissured ulcer which cannot be felt or seen on the stomach surface. Occasionally cancerous or chronic inflammatory enlargements of the head of the pancreas will produce a somewhat similar tumor, but it will be less movable and sooner

or later associated with jaundice and an enlarged gall-bladder, as well as disturbances of the digestive and, at times, the metabolic functions of the pancreas.

In cancer of the breast successful extirpation has followed the recognition, first, of skin infiltration, and, second, of the various lymph-streams leading from the organ. In like manner we find mural infiltration, in the far commoner pyloric growths, spreading toward the dome and but slightly toward the duodenum, and the freedom of excision varies accordingly. A study of the lymph-stream, too, has completely changed the method of attack since the time when Billroth practically declared it hopeless. The lymphatics perforate the wall and early infect the nodes along the lesser curvature, which must be removed in its entirety. The glands, like the vessels, along the greater curvature, are set at a distance from the stomach wall to allow of dilatation from food, and the direction of the stream is largely from left to right; this permits sparing the dome and this curvature, facilitates anastomosis or union of the defect and leaves the remnant of an organ which has or soon attains a considerable capacity. Enlarged nodes to the left of the line of excision can be readily teased out, just as the axilla is cleaned after giving a breast growth a liberal berth.

Again, as in hysterectomy, the operation is rendered bloodless by securing four principal vessels, so, in the stomach, the gastric artery is tied at one end of the lesser curvature and the pyloric at the other; going through the gastro-hepatic omentum, the pylorus is freed and raised to avoid the middle colic, just as we fight shy of the ureter, and the right gastro-epiploic or its parent vessel is caught; finally, its fellow on the left side is secured at an appropriate point and the hæmostasis is complete. Doubly clamping the duodenum close to the seat of disease and the stomach well away from it, excision is quickly carried out with the thermo-cautery, all sources of infection being seared; or the same can be done with the knife or scissors and an occluding suture introduced behind one or both clamps, before their removal. The seared or crushed edges are then trimmed off, and turned in (Fig. 11). If both openings are closed, the obliterated stream is restored by a posterior gastro-jejuno-stomy (Fig. 12), and if a spur result the loop is best twisted, this being supplemented by entero-enterostomy

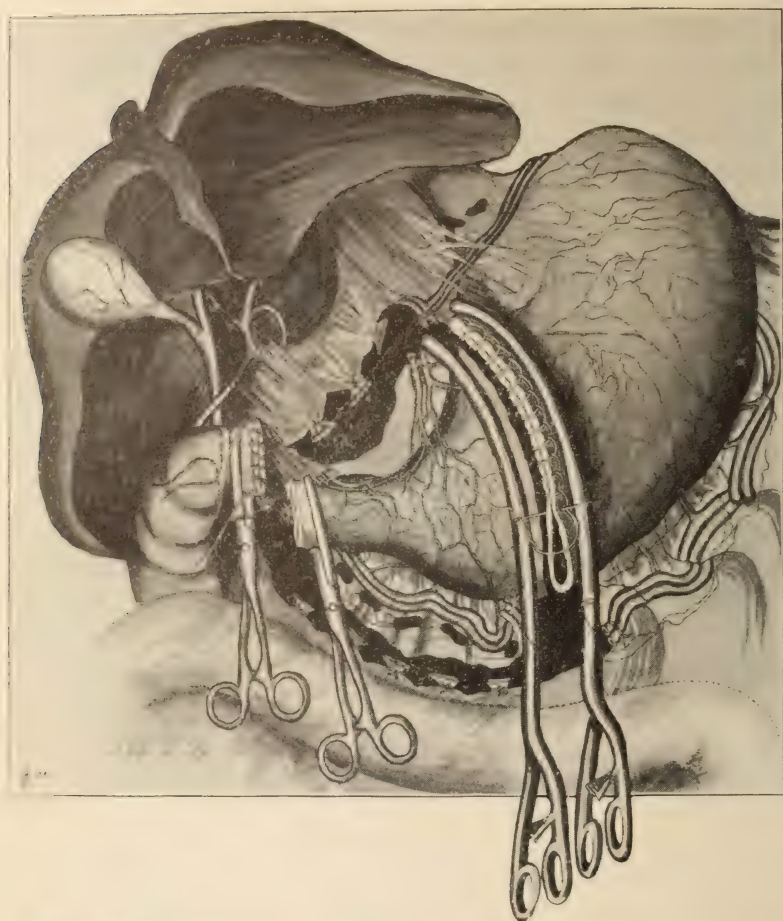


FIG. 11.—Partial gastrectomy, modified from Mayo. The gastric and pyloric vessels are divided between ligatures; the gastro-hepatic omentum is tied in sections, as high up as possible to get beyond all lymphatics, and torn through; the pylorus is now free and can be raised to reach the right gastro-epiploics or the pancreatico-duodenal, care being taken to avoid the middle colic; hæmostasis is completed by doubly tying and dividing the left gastro-epiploics at an appropriate point along the greater curvature. It should be noted that the entire lesser curvature is thus ready for removal, while as much of the greater curvature is left as is compatible with safety.

Kocher clamps are then applied to the stomach, between the divided ends of the vessels, the one on the part to come away being bare, the other guarded by rubber tubing. The section is made between the two instruments, preferably with the thermo-cautery; otherwise with knife or scissors. Doyen clamps are in like manner applied to the duodenum and the excision completed.

The divided ends are closed with a button-hole or continuous suture, the clamps removed, any bleeding points secured by "stick-around" stitches, when the lines of suture are turned in by a second row and a purse-string respectively.

This can be modified by applying a row of cobbler's stitches behind the clamp on the stomach, removing the latter, trimming the edges and turning in with a continuous suture.

and occlusion by infolding (Fig. 10). If the defect is not too great and the theoretically ideal, duodenal implantation de-

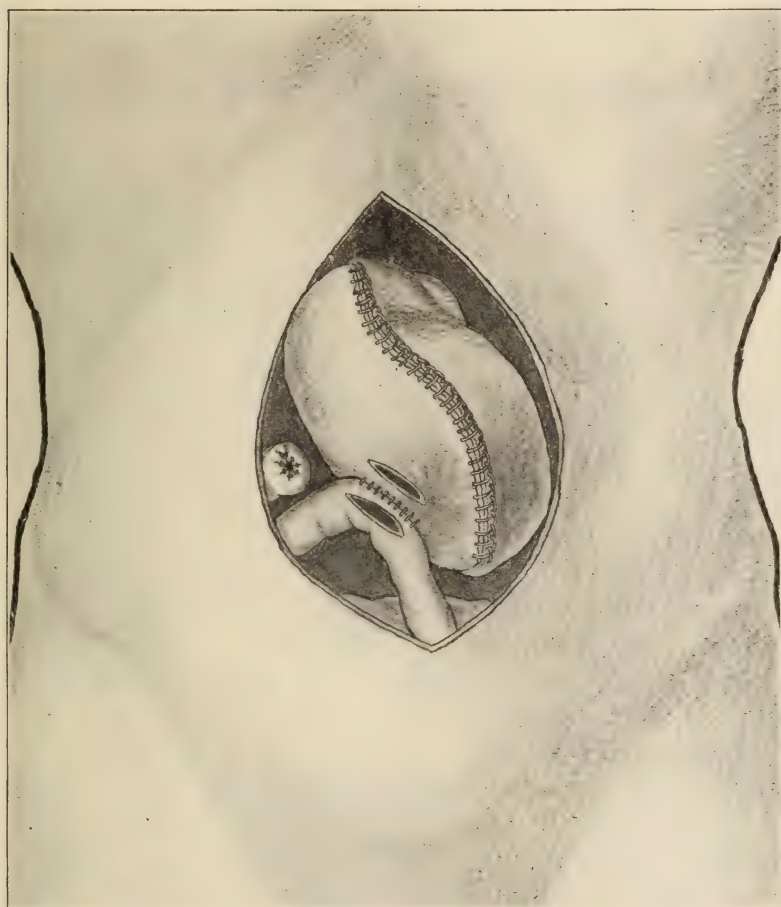


FIG. 12.—Partial gastrectomy and pylorectomy have been completed; the sutured stomach opening has been turned in with a button-hole suture, that in the end of the duodenum by a purse-string suture.

A posterior gastro-enterostomy, as in Figs. 6, 7 and 8, is begun, the parts however showing their relation when the organs have been replaced. Especially to be noted are the reversed position of the intestine and stomach, the opening still running from left to right, but from above downward, and there being practically no spur or kink. The direction of peristalsis, too, is identical in both stomach and jejunum.

cided on, the stomach end is treated as just described, and the divided duodenum is implanted into its posterior wall away from the line of suture (Fig. 13), leakage being much less

likely than in the old Billroth-Wölffler method of pylorotomy, in which the stomach opening was sutured down to equal the lumen of the duodenum. The abdomen is finally closed, with or without drainage, in such manner as the operator may

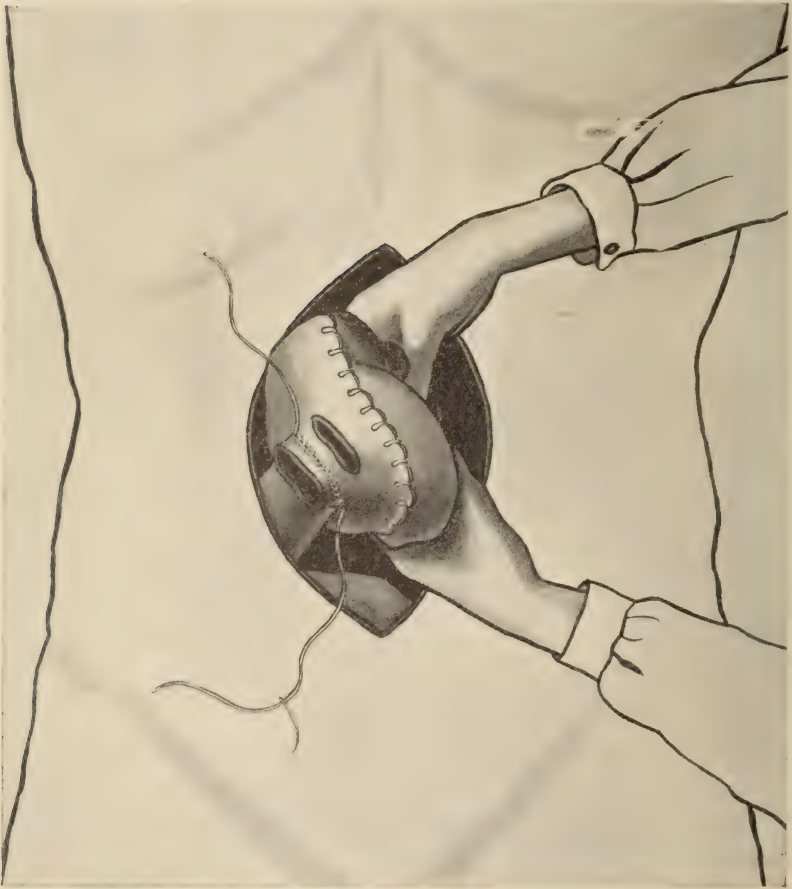


FIG. 13. From Kocher. Same as in Fig. 12, except the continuous in-turning suture and the beginning of a posterior duodenal implantation. The sero-serous protective suture has been carried half-way around and the through and through uniting one will follow. Absorbable bone-bobbins or even Murphy buttons are used by some operators.

prefer. I have found, like many others, that the entire operation can be done within the hour and with a safety dependent almost entirely upon the absence of metastases and attachment to other organs. While different surgeons vary the procedure just described in certain details, and while the perfected tech-

nique represents the combined work of such men as Robson and Moynihan, Hartman, Doyen, von Eiselsberg, Witzel, Kocher, Czerny, Murphy and Billroth's pupil, Miculicz, the credit at least for placing the operative surgery of stomach-cancer upon a basis of practical results is due to the Mayo brothers.

THE DIAGNOSTIC VALUE OF THE NORMAL CONSTITUENTS OF URINE.

BY WALTER W. SEIBERT, A.M., M.D., EASTON, PA.

(Read before the Homœopathic Medical Society of Pennsylvania.)

IN the treatment of disease, we must often call to our assistance one or more of the many other sciences. If our knowledge were perfect we would find that all sciences would blend to such an extent as to make their definition indistinct, and in some cases absolutely impossible. But, unfortunately, our knowledge is very imperfect and, as a result, there are no cases where gaps between the various sciences do not exist. It is true, endeavor has been made to bridge some of these breaks, but successfully only to a limited extent. When it comes to chemistry, or more especially to urinalysis and diagnosis, this gap shows up prominently. We have the science of chemistry worked out for us to the finest detail and to make a urinalysis sufficiently correct for our purpose becomes a simple matter. On the other hand, symptoms have been studied and arranged so that diagnoses in most cases can be easily made. But when we find an obscure case where every detail must be taken into consideration in order to arrive at a correct conclusion, then we find a task which requires a more thorough knowledge than is possessed by the average general practitioner. Here the gap between urinalysis and diagnosis becomes annoying and the necessity of bridging it the more urgent. Hence, the specialist. But do we not often make a wrong diagnosis or call in the specialist when a little more attention to detail would make correct diagnosis a comparatively easy matter?

Many practitioners in making a urinalysis will take the specific gravity and reaction, look for albumin or sugar, sometimes for both, and, finding the urine in these respects as it

should be, throw the specimen away and say he has made a urinalysis. The examination has revealed nothing to such an one. Allow another general practitioner who pays more attention to detail examine the same specimen and he may find an abundance of evidence of a diseased condition. The question then arises as to what should be sought for in a urinalysis and what significance will the results of this analysis have in forming a diagnosis.

In the first place, the physical characteristics must be observed. The amount in 24 hours, the color, the odor, the specific gravity from which the total solids are computed, the reaction and appearance must be carefully noted in every analysis. In the next place, the normal constituents must be investigated—whether present or absent. If present, the quantity of each constituent should be determined, whether absolutely or relatively increased or decreased, and to what extent. Finally, the abnormal constituents must be discovered, if present, and the quality and quantity determined. We have to do, however, in this paper only with the substances found in normal urine. Those of clinical interest are urea, uric acid and urates, phosphates, chlorides and sulphates. Of course, there are others which under certain conditions must be investigated, but the above five are all that need be examined in every analysis. Urea constitutes one-half; common salt, one-quarter; the remaining substances, especially uric acid and urates, phosphates and sulphates, the remaining one-quarter of the total solids. This ratio is maintained more or less exactly during health. So it is but natural to suppose that any marked variation in this proportion would indicate a derangement somewhere throughout the body. To show the value of examining these substances as they appear in the urine, we will investigate urea more especially.

Urea, the most important of the solids, normally varies in quantity from 20 to 30 grammes in 24 hours. It may be practically absent as in advanced cases of acute yellow atrophy of the liver or before and during an attack of uræmia. If its marked scantiness be prolonged, we must look for uræmic convulsions or coma and death. When the total quantity excreted in 24 hours is diminished we have what is called absolute deficiency. Beside the two diseases just mentioned we

may have this condition in other diseases of the liver; before paroxysms of gout or asthma; in yellow fever; cholera; diseases of the spleen; Addison's disease; osteomalacia; chronic rheumatism; and other chronic diseases, especially many nervous ones, chlorosis, paralysis, ovarian tumor, uterine cancer and chronic nephritis.

When the amount of urea per ounce of urine excreted is below normal, we say there is a relative deficiency. Relative deficiency may be more than counterbalanced by an excessive quantity of urine. Then we have absolute increase and relative deficiency in the same sample. Relative always refers to grammes per litre. Absolute always refers to total quantity in 24 hours.

There may be a relative deficiency after excessive ingestion of fluids. Or, pathologically, in chronic nephritis, except when dropsy is excessive; diabetes insipidus; hysteria (after the paroxym); anæmia; and some cases of neurasthenia.

Absolute increase may occur in acute febrile diseases with emaciation. Under this head we would have typhoid fever, pneumonia, the exanthematous diseases, typhus, remittent fevers to some extent, and intermittent fevers before the chill. This condition may also exist in pyæmia; some cases of diabetes; atrophy from dyspepsia in children; phosphorus poisoning; some nervous diseases, as muscular atrophy; sometimes in diffuse bronchial catarrh without fever.

Relative increase may occur physiologically, due to causes which would diminish the quantity of urine, especially abstinence from liquids. Pathologically, it would occur in febrile disorders, especially acute rheumatism; acute or chronic nephritis, where the urine is concentrated and high colored from dropsy; congestion of the kidneys; certain hepatic diseases; some cases of diabetes mellitus; certain nervous diseases; before the convulsions of pregnancy.

We have briefly gone over the diseases which may be accompanied by variations in the amount of urea, but from these data alone we cannot make a diagnosis. However, when we call to our assistance other symptoms—the more the better—we find our above lists are often of the greatest help in coming to a conclusion. The most marked example of the value of the normal constituents may be seen in diagnosing amyloid degen-

eration. The symptoms of amyloid degeneration and chronic diffuse nephritis are so similar that differentiation frequently becomes almost, or quite, impossible. Often the only diagnostic symptom is to be found in the urine. In amyloid degeneration the total solids may be almost, or quite, normal. In chronic diffuse nephritis, on the other hand, the normal constituents or total solids, especially urea and phosphates, are markedly decreased. It is not in diagnosis alone, however, that knowledge of the condition of the urine may be of use to us. The variations in amount of urea give us a delicate index in determining the course diseases are taking under treatment and in prognosis generally.

In applying what we have learned of urea to diagnosis and prognosis, there are certain facts that should be borne in mind. High relative urea may be more than counterbalanced by scanty urine, which would mean deficient absolute urea. On the other hand, on the same diet more urea relatively and absolutely may be passed in two pints than in double that amount in urine. Uræmia, especially in pregnancy, can develop when a few hours before the amount of urea was normal. Finally, we must remember the action of certain drugs on the excretory power of the kidneys.

Briefly going over the subject in this way can do no more than call to our attention some facts which may have escaped the notice of some of us. These facts are of great importance, however, and if closer investigation be made of not only urea, but the other substances found in normal urine, data will be obtained which may make a diagnosis more certain and a prognosis more reliable.

CONJUGITAL LACK OF TEAR SECRETION.—The case reported by Sommer is an exceedingly rare one. The patient was a child of $2\frac{1}{2}$ years old. The mother reported that even at the time of the accident in which the child was burned the manifestations of pain were not accompanied with tears. The child was bright and well nourished. The conjunctiva and tear passages were normal. The ophthalmoscopic examination was negative. The salivary glands were in proper condition. Local irritation could not induce any flow of tears. The internal administration of jaborandi, as well as instillation of pilocarpine and eserine, made no particular change in the condition. It seems that this is the only case reported in literature.—G. Sommer, *Annals of Ophthalm.*

ON THE FREQUENCY OF PULMONARY PHTHISIS IN INFANCY AND CHILDHOOD.

BY EDWARD R. SNADER, M.D., PHILADELPHIA, PA.

THE frequency with which phthisis pulmonalis is found in infancy and childhood is not dreamed of by the general medical profession. I shall not attempt to quote statistics, but shall draw from my personal experience in the detection of this malady in the little ones I have seen in my private, consulting and hospital practice. From the number of cases that are sent into the hospitals with a wrong diagnosis, or with none at all, I am forced to the belief that the general profession do not think much of the probability of the lungs being affected by a tubercular or tuberculo-pneumonic process in the young, and think only in childhood of tuberculosis of the bones, the brain membranes, the intestines, or the peritoneum as being likely to be affected by a tuberculous process. It is to call attention to the fact that lung maladies of the tuberculous and chronic broncho-pneumonic type are very frequent, indeed, in children, that this paper is written. There has been such a crusade against tuberculosis in the adult, that there has been created a general tendency, at least, to pay more attention to the early diagnosis of phthisis in adults; this crusade has not yet apparently extended to children. We dare not neglect the adults; neither must we neglect the little ones; but I fear many of us are neglecting the proper examination of children's chest for evidences of disease. There are a number of reasons why tuberculosis is not more frequently discovered in children, as 1. Failure to apprehend that lung disease is frequent in children. 2. Neglecting the examination of the chest. 3. Dependence upon cough and emaciation to suggest the presence of pulmonary disease. 4. Failure to recognize the fact, known to most clinicians, that it is extremely rare for pulmonary tuberculosis to pursue what might be called a typical course in infants or children. 5. The fact, too, that the disease may be a sequence of an acute malady, and the little ones are too soon

out from under the observation of the attending physician. 6. The clinical observation that tuberculosis of the lungs in infants and children often simulates other diseases, or is masked by a diathetic state, or occurs in connection with some chronic affection, and its symptoms are undiscovered, or misinterpreted. 7. The difficulties attending thoracic examinations in children; and 8. The absence in infants and children under 7 of the corroborative evidence furnished by microscopic examination of the sputum.

Among the more prominent causes of failure to discover lesions in the young with those who examine the chest carelessly, is the mistake of not appreciating the fact that the child's thorax, so far as investigating it by the methods of physical diagnosis is concerned, is a radically different proposition from that of the exploration of the chest of an adult. In the first place, the same amount of force applied in percussing an infant's chest as would be used in a fairly grown child would absolutely defeat the very object for which percussion is made; for the resonance induced by the percussion-strokes would be derived from so large an area that tone modifications resulting from small lesions would be obscured or fail of detection, and all this because of the resilience of the child's chest. Too often sight is lost of the fact that you can easily produce in the thoraces of most children, by improperly conducted percussion, the tympanitic, amorphic or cracked-metal notes, in cases where the lungs are absolutely normal; and if this fact be forgotten, a cavity may be diagnosed where none exists. (I may remark, in passing, that cavities are frequent in the lungs of the young as the result of destructive processes, contrary to the statement of the infrequency of this lesion in childhood, as stated in text-books.) The deformed chests of children, due to prolonged attacks of coughing, as in pertussis, the bronchitis of measles, the changes due to rickets, are factors, too, occasionally, that interfere somewhat in the percussion of the chest in the young, in the hands of those who do not make allowances for the changes of sound that must necessarily ensue as the result of these deformities of the chest walls. Light, extremely light, percussion is the method of most service in discovering abnormalities in the percussion-sounds; and, by the way, while the percussion-note is not invariably altered in the pul-

monary diseases of children, if it were not for the modifications that take place (as the result of disease) in the percussion-sounds, the difficulties attending the diagnosis of the diseases of the chest in the little ones would be increased ten-fold, and these difficulties are great enough already. While auscultation is less interfered with on account of the structural peculiarities of the young chest than is percussion, it must be remembered that the respiratory murmur in the very young is apt to be harsh, and occasionally even bronchial in character (without lung lesions), owing to the nearness to the chest walls of the primary divisions of the bronchi or to the ease of the transmission of the bronchial element, and also, in some instances, to unexplained causes. In these latter cases, if one trusted alone to the character of the breathing, to the exclusion of the modifications of sound obtained by percussion, or the changes in the vocal sounds induced by the acts of crying, mistakes would be an every-day matter. If one is not previously acquainted with the characters of one of these "bronchial-breathing chests," if I may so characterize them, he is often in doubt as to whether or not there is a pathological basis for the apparent departure from normal. However, when this bronchial breathing is heard over a wide area and over both sides of the chest, if it is representative of a lesion or lesions, it would be exceptional, indeed, if the other methods of physical diagnosis would not furnish corroborative evidence of the normality or abnormality of the suspected areas. The adventitious respiratory sounds, the râles, while often present to careful auscultation, cannot be produced, when apparently absent, as in the adult, by certain manœuvres; and, unless the child can be made to cough, you may sometimes be compelled to translate mere "moisture" of the respiratory sounds, if I may so put it, into moist râles, until such time as luck favors you, or an act of coughing comes to your rescue. This difficulty is, of course, less in comparatively advanced children, who can be made to understand that you want them to breathe deeply or to cough.

The diagnosis is, in some cases, rendered difficult by reason of the fact that many of these cases are not suspected to have anything wrong with the lungs, but their symptoms are referred to the gastro-intestinal tract, the throat, or to adenoids, or to rickets, to typhoid fever or malaria, or some other of the infan-

tile maladies. Besides, cough is seldom a prominent symptom in the lung diseases of a tubercular character in children, and may, indeed, be entirely absent, from start to finish, at least to such an extent as that, if you inquire for a history of cough, the symptom is so little obtrusive that the care-taker will reply in the negative when you ask if the child has coughed. Early emaciation is not at all a pronounced symptom. Indeed, it may be absent until a few days before the end, while in still others it is the most marked feature of the case, and is the one for which you are consulted, and often leads to the diagnosis of marasmus in too many instances, when the "marasmus" is simply symptomatic of phthisis. I recall one group of ten marasmatic babies, in which I found that eight were due to tuberculosis of the lungs, one to tubercular peritonitis, and one to rickets. Of course, groups of cases of that marasmatic character need not all furnish anything like that proportion of tuberculosis cases. I simply recall this particular group because it is the one that made me think more about the prevalence of tuberculosis in the very young, than my reading, my careless examinations, or my prior experience had led me to suspect. Fever, as a symptom of pulmonary tuberculosis, is in some cases the most pronounced sign of ill health discoverable, although some cases run an absolutely afebrile course; at least they have in my experience, where I have had an opportunity to make temperature observations. A flare up of fever every now and then is very suggestive of tuberculosis somewhere, and mostly in the young, particularly in infants, and this I say, with all reverence for, and belief in, the well known clinical fact of the singular instability of the temperature in the small men and women, and with a very full realization, too, that the most trifling ailments will send the temperature skyward. But that symptom, without any other whatever, makes me at once examine the child thoroughly and the lungs with particular care.

In the diagnosis of these cases we are also lacking in an aid that we often have in adults, namely, the sputum, for it is seldom that you ever get sputum, even though you have cough, in a child under 7. We miss, therefore, the important corroborative evidence that might possibly be furnished us by the discovery of the tubercle bacilli by the microscope.

From all these considerations you will imagine that the di-

agnosis in the young is beset with difficulties, and in many cases this view is not far from right, and yet this is not always the case. By careful attention to the percussion-note and the auscultatory phenomena, a diagnosis can in many instances be made with more than a reasonable degree of certainty. You will also gather from what I have said that the diagnosis is absolutely dependent upon the discovery of the signs indicative of consolidation or cavity by means of physical diagnosis. This fact I want to emphasize with all force, for if you depend upon rational symptoms in children you will not get them, and the frequent absence of cough, and of emaciation, and sometimes even of fever and râles, make this more positively evident. Let us imagine that you have discovered undoubted evidences of consolidation about the chest, particularly at the apex, but practically anywhere in a child's chest; the chief difficulty hinges, then, upon the interpretation of those sound signs as indicating either a tubercular or a broncho-pneumonic process, or a latent lesion, or scar of a past malady. The differentiation of these two diseases when the area is small, it must be admitted, is sometimes impossible, until some time has elapsed, and you have an opportunity of frequently noting the successive changes that take place in the consolidation, either in the process of organization, break-down or resolution, together with the concomitant symptoms and febrile phenomena presented by the patient; but, on the one hand, if these consolidations are the sequelæ of an acute disease, they are more likely to be broncho-pneumonia; and if a separate process, or occurring in connection with some diathetic state, the consolidations are more likely to be purely tubercular. Another fact is this, that it practically does not make much difference, in the progressive cases, at least, whether it be a purely tubercular or broncho-pneumonic case, for the termination is the same, and I therefore prefer the term *phthisis pulmonalis*, or "consumption," for the class of cases where there is an active lung consolidation and a differentiation cannot be positively made. A still greater problem is sometimes presented when you find consolidation without fever, and which is making little or no downward progress, for here the differentiation is between a progressive and a non-progressive lesion; for some of these cases, notably in children over 2 years of age, *do* get well, while most, if not all, of the

infants, in my experience, die, whether the lesion is a latent one or the scar of a previous affection. In some of these cases the point raised can be settled at once by the absence of râles and the perfect health of the child, aside from the presence of a readily discoverable cause for the symptoms that lead you to suspect that the child's lungs might be diseased.

Anæmia is a suggestive sign, too, of phthisis, and this is one of the commonest affections, or rather conditions, that lead to error in diagnosis, namely, considering the anæmia relatively essential rather than symptomatic. Gastro-enteric disorders are often symptomatic, rather than essential, and marasmus, above all other affections, presents the most marked cases of phthisis pulmonalis.

My plea, in this paper, is for the thorough investigation of the thoraces of children for tubercular or broncho-pneumonic processes in the young, for the purpose of rendering intelligent therapeutic aid, and because a certain number of these cases can be saved. I have seen a number of recoveries when the disease was recognized early, and believe that the prognosis varies, in a general way, with the years. For instance, the infants die; in those beyond two and up till within a year or two of puberty, recovery is quite frequent; and after puberty again the prognosis is bad until toward the middle period of life, when it is better than during adolescence. Let us see if we cannot do better work with the little ones in our charge, and save at least some from the "white death!"

TYPHOID FEVER IN CHILDREN.

BY A. S. MCDOWELL, M.D., READING, PA.

(Read before the Homœopathic Medical Society of Pennsylvania.)

WHILE, strictly speaking, typhoid or enteric fever is not a disease of childhood, yet a sufficiently large number of cases occur during that period to warrant us in giving it considerable attention.

The object of this paper is merely to bring out briefly the salient points in the treatment of typhoid fever.

As it is an acute infectious disease of the small intestines,

and, practically, non-contagious, we naturally look to see whence arises the infection.

The cause is a specific micro-organism,—the bacillus of Eberth. Let us note where this organism flourishes most profusely.

Water, the liquid essential to human existence, is undoubtedly, when polluted, the chief cause of typhoid.

Milk, coming from cows that have contaminated water supplied them, or that have eaten grass on which improperly treated fecal matter has been spread, is also a source from which many cases arise.

The washing of milk-cans with infected water, the addition to milk of infected water, natural ice, the excrement of typhoid patients, are other sources that may be mentioned.

The recent experiments in regard to the germicidal effects of copper sulphate, while proving that the bacillus of typhoid will die after four hours' exposure in a copper vessel to the action of this chemical, the water being kept at the temperature of an ordinary living apartment, has the objection that it requires hours to produce the desired effect. The necessity of procuring copper vessels would be an expense that many of the poor could not afford. As every one can readily boil water, and without increase in household expenditure, it seems to me to be the most satisfactory way of dealing with this bacillus.

Boiling water for a period of ten minutes will completely destroy this organism. Freezing has no effect whatever. The precaution to be taken is plain—boil all water used for household purposes, properly disinfect all typhoid excrement, guard against contaminated milk and ice, and this disease will be relegated to the past. Our duty to the community in which we live, and to the public at large, lies in preventing, rather than in curing, typhoid fever.

The incubation or prodromal period varies from a few days to two weeks. During this stage we find more or less languor, backache, tiredness of limbs, bleeding from the nose, headache, loss of appetite, constipation, or occasional diarrhœa. These symptoms vary somewhat in given cases, but are present in the majority.

With the invasion we have chill followed by rise of temperature, accompanied by soreness in the ilio-cæcal region, tender-

ness, gurgling, enlargement of the spleen and liver, a red-edged tongue with a thick, white coating, changing to brownish, or, sometimes, with a glazed streak appearing down the middle, parched lips, sordes, thirst and offensive breath. There is often a pronounced restless or nervous condition; but dullness may be present instead of nervousness. The pulse is increased, although not in proportion to the temperature, and is diocrotic at times.

The eruption of typhoid generally appears about the beginning of the second week, although it may be delayed to the twelfth or fourteenth day. It is absent in about 15 per cent. of cases, diagnosis in these being accomplished by exclusion. These spots are found on the left side of the abdomen and over the chest, and often appear in successive crops. They are pin-head-size, separate, disappear on pressure and reappear when pressure is removed.

The temperature rises rapidly, becoming slightly higher each day for a period of five or six days, and is then followed by ten days or two weeks, and sometimes longer, period of elevation, marked by a morning remission and evening rise of about two degrees. After this period, should the case progress favorably, the morning remission increases gradually, and about the fourth week a normal temperature is reached. A morning sub-normal temperature, of some duration, is not unusual at this period. If, however, the case is marked by continued high temperature, there is more likely to be an unfavorable result.

Where cerebral symptoms are severe the temperature is apt to vary considerably from the ordinary typhoid range. Cerebral symptoms include headache, from a simple dullness to a congested condition often accompanied by bleeding of the nose.

Delirium frequently occurs during the first week, manifesting itself generally in the afternoon and night. Occasionally, a marked drowsiness is present, the patient sleeping day and night. Paralysis may occur late in the disease, terminating in the majority of cases in complete recovery.

Trembling of the tongue and inability to protrude it any distance may often be observed.

Diarrhœa.—This may start during the first week and continue until the end of the second week, occasionally becoming chronic. It is of a green or yellowish character, accompanied or preceded by colic-like pains. These movements may be

either voluntary or involuntary, and vary in number from two to a dozen or more per diem, and may often contain specks of blood and small sloughs. The odor is penetrating and offensive.

The Glandular System.—The spleen is enlarged in practically all cases, and is tender on pressure. The liver is also sensitive to pressure. Both the spleen and liver frequently remain in this condition during the course of the disease. The urine is diminished and is heavily loaded with urea of small quantities. Albumen may be present late in the disease.

Hæmorrhage.—Ulceration is most marked during the third and fourth weeks, and with its constant sloughing we find hæmorrhage most likely to occur at this period. The quantity varies from mere specks to several ounces or even fatal hæmorrhage. Here we may find a drop of several degrees in the temperature, reacting in several hours, providing the hæmorrhage is not severe enough to cause death.

Complications.—They are: Broncho-pneumonia, peritonitis, perforation of the bowels with bleeding into abdominal cavity and consequent collapse; and relapses from indiscreet diet, auto-infection and over-exertion. Personally, I have had one case of auto-infection, in a boy who would persistently pick at various parts of the body and around the rectum, and in a moment or two pick at his nose, lips and teeth, and thus reinfect himself.

Perhaps I should mention ambulatory or “walking typhoid.” This is frequently met with in children, the parents assigning the aches and pains to “growing pains.” The disease often reaches the second week before the child receives proper attention. Usually these attacks are not as severe as the ordinary type, although at times they result fatally. Abortive typhoid is but seldom found in children, and requires no special comment.

Prognosis.—Under careful homœopathic treatment, assisted by good nursing, provided the case is secured in the early stages, it may be said to be favorable. Very few cases should result fatally. From personal experience, 5 per cent. is too high a mortality.

Treatment.—First: Careful prescription of the indicated homœopathic remedies. Second: A good, trained nurse.

Third: Proper diet. In fact, the combination of these three is essential to good treatment. The patient should be placed in a large, airy room, with plenty of sunshine. An abundance of good air is of great assistance. Draughts, of course, are to be avoided. Cool sponge baths should be given when the temperature reaches 103° or over, and repeated at intervals of three or four hours, if necessary. Alcohol and powdered alum make a good preventive of bedsores. A daily cleansing bath should be administered. The ice-cap placed over the region of the spleen and left side of the abdomen does much to reduce the temperature and allay the inflammatory process. The congestive headaches may be relieved by the same method. Antiphlogistine will frequently aid in relieving abdominal pain and tenderness. Disinfect all excretions with a reliable antiseptic. Burning, or the use of lime, answers all purposes. Constipation during the later stages of the attack may be relieved by enema or suppositories. The bowels should move at least every other day. The mouth should be cleansed two or three times a day with glycerin, one part glycerin, two parts water; or with glyco-thymoline, or some similar preparation.

Diet.—The diet should be liquid throughout the entire course of the disease. Milk is undoubtedly the ideal diet. Gelatine, ice cream, cocoa, junket, buttermilk, unfermented grape juice, milk punch and, during the later stages, egg-nog will be found of assistance where some stimulation is needed. Personally, I have found the less stimulation used the better, especially during the early stages. Beef tea and mutton broth are also useful in sustaining the strength of the patient. Care should be taken in selecting the food from the foregoing list, to take that which will be suitable to the condition of the patient's bowels. Water should be given freely and often.

Medication.—The great majority of cases need no other remedies than bryonia and rhus. These remedies, if used persistently, may be depended upon, in most cases, to bring about a successful issue. Ars., bapt. and hyoscy. may also be mentioned as being useful. Strych., $\frac{1}{40}$ to $\frac{1}{60}$, answers very well in circulatory weakness or collapse. Make your selection of remedies carefully, give them time to act, and you will get results. Practically all of your cases will recover.

DISEASES OF THE FALLOPIAN TUBES.

BY THEODORE L. CHASE, M.D., PHILADELPHIA.

(Read at the Annual Meeting of the Medical Society of the State of Pa., Sept. 20, 21, 22, 1904.)

WITHIN the domain of abdominal surgery, inflammatory conditions of the Fallopian tubes are the most frequent causative factors in the production of intra-abdominal disease. The anatomy of the tissues involved explains their extreme susceptibility to inflammatory changes. Under variable conditions the mucosa of the Fallopian tubes is especially vulnerable to microbic infection; the muscular structures are feebly developed and the serous covering is sensitive to affections involving surrounding structures. The blood-supply of the Fallopian tubes and broad ligaments, under unfavorable conditions, demonstrates its liability to morbid changes sufficient to seriously interfere with the nutrition of the parts.

All of the tissues of the Fallopian tubes afford favorable media for bacterial habitation. The predominant germ varies according to the character of the infective process. Inflammation of the Fallopian tubes may be produced from exposure to colds; they may result from injuries, or may occur when substances are injected into the uterus and forced out into the lumen of the tube. These come under the head of the non-infectious inflammations.

The infectious form of inflammation is due to the invasion of the various pathogenic bacteria; such germs usually gaining entrance to the Fallopian tubes from the uterine cavity or from a previously infected peritoneum. The infection may originate from the close proximity of a diseased appendix, or other portion of the intestinal tract; or from the blood and lymph streams. Tuberculosis involving any portion of the peritoneal surface is prone to affect the Fallopian tubes.

The gonococcus is the germ most frequently encountered. It gains access to the tubal mucosa from the cavity of the uterus. The streptococcus usually involves the deeper structures of the myometrium and is conveyed to the Fallopian tubes by the blood and lymphatic vessels. The staphylococcus enters di-

rectly from the uterus to the tube. The bacillus coli commune may extend from the uterine mucosa or penetrate the intestinal wall and so gain access to a previously inflamed tube. Kleinhans examined 218 pus tubes and found gonococci to be the predominant germs in 74 cases; the streptococci are the next in the order of frequency, being followed by the staphylococci, coli commune, tubercle bacilli and others.

The invading micro-organisms are found most in evidence in the early stages of inflammatory processes. When the germs are confined within limited areas they are gradually destroyed by their own excretions. It is often difficult to define the character of the infective process from the patient's history and subjective symptoms, excepting upon general principles. Certain cases point to infection following gonorrhœa and others in the train of a puerperal infection, whether this be from abortion or labor at full term. An auto-infection of the Fallopian tubes is mentioned by some authors; but the majority assume that it is impossible for pathogenic germs to originate *de novo* within the tissues. We believe that they must at some previous time have entered from without.

In all the inflammatory diseases of the Fallopian tubes we have the classic signs of inflammation; there are present the vascular injection, the transmigration of leucocytes, the small, round-celled infiltration, and the swelling of the epithelium. In the early stage of inflammation the secretion of the tube does not exhibit a marked metamorphosis. It is at first increased in amount and of a fluid character; later, it becomes mucoid, with a transparent, smoky appearance. Sometimes it is milky, displaying occasional small blood streaks. The discharge varies in consistency owing to the different proportions of leucocytes, red blood cells and epithelium. Macroscopically, the acute process shows congestion of the bloodvessels which are dark in color, and protrude prominently beneath the peritoneal covering. The tube becomes thickened and lengthened, sometimes twisted in its course; the fimbriated extremity being subjected to the greatest congestion, as evidenced by its violet-blue color and the exudation of a glairy mucus, which can be expressed from the abdominal ostia. In some instances, even the initial excretion is purulent in character.

In chronic inflammation of the tube new connective tissue

forms; thus making the tube firmer and less flexible than normally. The extravasations of blood which can only be seen by the microscope in the acute stage are observed with the unaided eye as bluish-red spots. The hyperplasia of the connective tissue may proceed to such an extent that the tubal walls are increased in thickness to a centimeter or more; sooner or later plastic lymph is thrown out about the tube; this organizes and forms adhesions of varying degree between the Fallopian tube and other viscera. In these cases the fimbriated extremity will be found closed.

The *symptoms* of acute salpingitis are usually ushered in with a chill and corresponding rise in the pulse-rate. The temperature varies from 101° to 104° . Severe pain is complained of in the ovarian region upon the affected side. Bimanual examination reveals extreme sensitiveness of this area. If the disease is of gonorrhœal origin, both tubes are involved. Many of the cases go on to pus formation, which produces more or less distention of the tube; some containing as much as twelve ounces or more. If the case has been due to septic germs, it progresses to a chronic state, producing either an abscess or a general septicæmia. In some instances resolution takes place by absorption of the pus, with the possible formation of a hydrosalpinx.

Tubercular salpingitis is usually bilateral. The tubercles are found beneath the mucous membrane, or the process may extend to the muscular coat of the tube and produce extensive caseation and in some instances a pyosalpinx. Calcareous deposits are sometimes found in the caseous material. Plastic peritonitis is noted about the fimbriated end of the tube.

In differentiating the varieties of diseases of the Fallopian tubes the history of the case affords valuable information. In many cases the diagnosis is made positive by a bacteriologic examination which demonstrates the presence of the infective germ. In specific cases we have the history of gonorrhœa and the identification of the germs by the microscope. In the septic cases there is the history of puerperal infection, following abortion or labor at full term; if the case is seen early a microscopic examination of the discharges reveals the presence of the causative germ. The tubercular cases present the usual history of tuberculosis, the disease being frequently recognized

in other organs. In most instances, however, the condition is apparent only at the time of operation.

Inflammatory diseases of the Fallopian tubes may be secondary to some other intra-abdominal disease. Appendicitis is the most common factor in such cases. The close proximity of the appendix to the right adnexal organs should be remembered in all cases involving the right pelvic region. Infection travels from the appendix to the pelvic structures through the lymphatic channels, which enter the meso-appendix and pass onward, emptying into the mesenteric and meso-colic glands; also by way of the appendiculo-ovarian ligament to the right adnexa and uterus. The bloodvessels likewise form avenues along which infection is apt to be carried to other organs in the affected region.

Cases presenting positive evidence of tubo-ovarian disease and also having a mixed train of symptoms, such as pain radiating to the epigastric and umbilical regions, with nausea or vomiting, constipation or diarrhœa, and pelvic pain extending upward into the abdomen, with rigidity of the overlying muscles, arouse strong suspicion of coexisting appendicular inflammation, and should be considered from this standpoint which, of course, *indicates the earliest operative interference*; the one exception being cases of gonorrhœal infection where both uterine appendages are involved and a slow, progressive pelvic peritonitis has developed.

The *treatment* of diseases of the Fallopian tubes is necessarily variable, when we take into consideration the condition of the patient, the onset of the inflammation, whether of sudden or slow development, and the character of the pelvic conditions found upon bimanual examination. Internal medicines accomplish much in subduing the inflammation in some cases. An ice-bag placed over the affected region early in the attack often controls the spread of the inflammatory process. Cases having an abrupt onset, with the inflammation extending from the tube and rapidly involving the peritoneum, showing no control from prescribed remedies or the ice-pack, within a period of from three to four days, should be treated by cœliotomy and removal of the source of inflammation.

Cases wherein the patient has an attack of inflammation of the tubes, and recovers, but from some slight cause has a re-

lapse, should be considered from an operative standpoint only. When a patient has recovered from an attack, with her pelvis filled with inflammatory exudate and numerous adhesions, producing a condition of semi-invalidism, she will have to be operated before health can be restored. Some of these cases are relieved to a limited extent by tampon treatment; but such cases are few and far between. Before tampon treatment is inaugurated in any case of tubal disease, a systematic, pelvic examination should be made in order to ascertain that the case is one suitable for a slow absorption of the exudate by internal medicines and tampon treatment persistently carried out. Such selected cases require several months of persistent treatment to effect permanent relief.

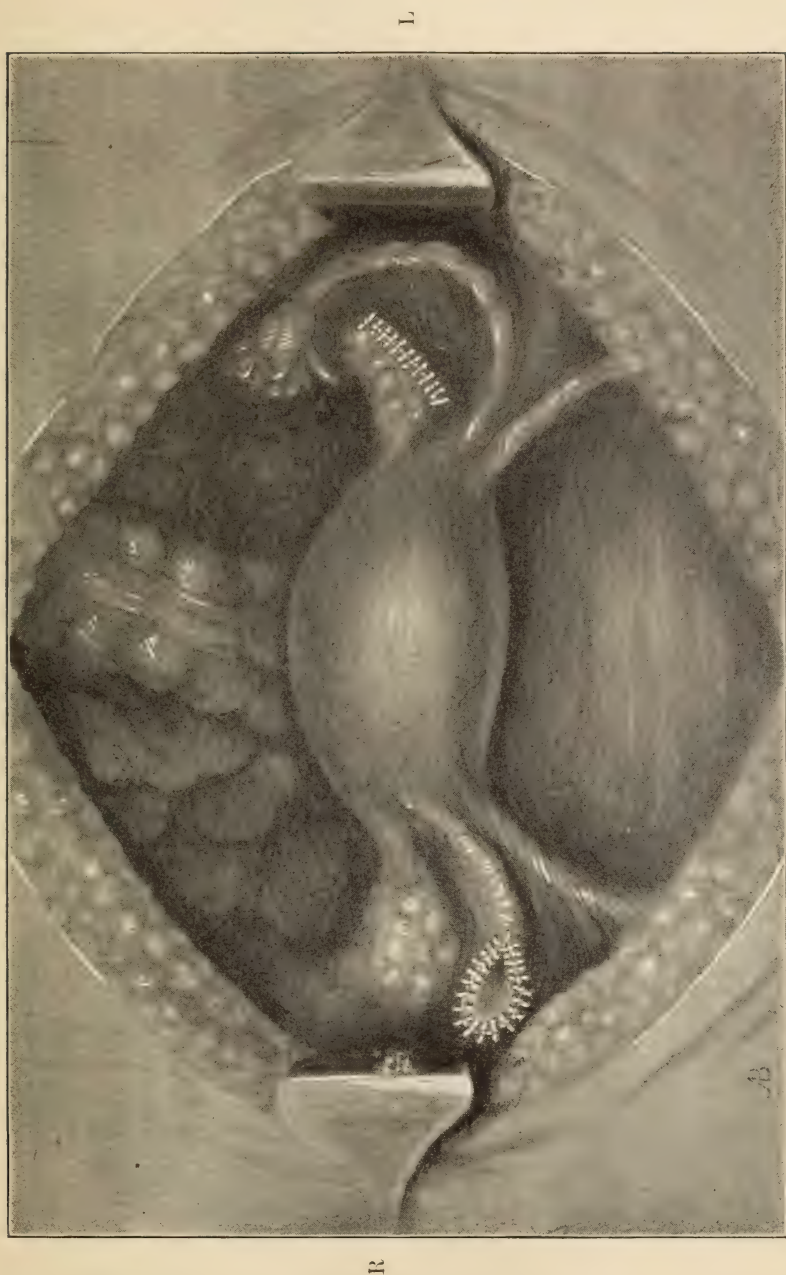
The conservative work performed upon the Fallopian tubes and ovaries is the outcome of long experience by operators in gynec surgery. Total ablation in the treatment of all pelvic disorders requiring surgical interference is justly a thing of the past. Few cases operated at the present day will suffer the regret in future years that inevitably follows such procedures. In rare cases where total ablation becomes necessary the woman often exchanges one condition of suffering for another equally disagreeable, with perhaps the freedom from acute, physical pain, as the solitary, mitigating circumstance. The neurologists have brought our attention to these facts, and they deserve the most careful consideration on the part of all operators. The woman who, by the performance of an operation, has been endowed with hot flashes, dyspnoea, vertigo, rapid taking on of fat, and the loss of sexual desire, remains still a subject for the physician's care. In many cases where the most obstinate and troublesome symptoms have been present, complete relief will be afforded by puncture of an ovary and the liberation of adhesions. Where the Fallopian tubes have been the offending members, conservative work, such as the opening and thorough cleansing of the tube and freeing of both ostia, will be followed by the same prompt relief. I have seen many cases that have required extensive operative measures upon the pelvic organs, where the leaving of a small portion of an ovary prevented an early climaxis.

In every abdominal operation for disease of the Fallopian tube or ovary I have removed all tissue which was diseased be-

yond repair, and at the same time have endeavored to save portions of an organ, sufficient to insure the performance of its normal function, even though such function were only partial. In looking over my records I find 87 cases where a part of a diseased ovary or tube was left *in situ*, and among these cases there were no fatalities. This is mentioned because many operators condemn conservative work upon the tubes and ovaries where a part of the organ has been diseased, asserting that such procedures increase the mortality-rate. Conservative surgery of this character depends upon several factors for its ultimate successful results. Primarily, when part of an organ is left, we must be sure that the blood-supply to that portion is sufficient. When the Fallopian tube has been operated upon and its diseased areas removed, in order to insure ultimate success, the endometrium must be placed in an aseptic state by curettage and the application of antiseptics to its surface if necessary, thus preventing a reinfection of the mucosa of the tube from the cavity of the uterus.

These remarks do not include all cases. A woman who is nearing the menopause will not be benefited by conservative work in the pelvis. The judgment of the operator must decide whether or not an ovary or tube can be saved. In the treatment of salpingitis the fimbriated extremity is found closed, dilated and club-shaped. Under these circumstances the fimbria is opened, the contents of the tube evacuated and the tube thoroughly washed out with a small syringe, using bichloride solution 1:4000. After this the tube is straightened out and a fine probe gently introduced, to see that the uterine ostia is patulous. Our object is to keep the fimbriated extremity of the tube open; this is done by slitting up the fimbria a distance of about one centimeter, everting the edges and beginning at the cut surface, suturing around the ostia, coming back to the point of starting, so that the edges cannot come together and agglutinate. (See illustration.)

In hamatosalpinx, which is usually due to a twisting or prolapsus of the tube, which causes a damming up of the blood, with consequent dilatation of the lumen, the condition is not septic, and tubes thus affected should not be removed. If there is an associated displacement of the uterus, with adhesions, these should be liberated and the uterus brought into



On the right is shown method of suturing Fallopian tube, insuring potency of abdominal ostia. The left side illustrates manner of conservative treatment of ovary.

normal position and retained there by shortening the round ligaments. Hydrosalpinx, which is often the result of an old salpingitis, is a dropsical condition of the tube, which should also be treated by evacuation and sterilization of the lumen, leaving the tube in position for future function. If an ovary is found partially diseased the affected area should be removed; even though only a small portion of the parenchyma of the organ be healthy, it should be left in position, noting carefully that it has the proper blood-supply and that raw surfaces are covered over and all bleeding controlled. (See drawing.) This is important, owing to its bearing upon the future function of the tube. In a given case, a history of recent gonorrhoea, or puerperal infection following either abortion or labor, will cause us to refrain from the usual line of conservatism, owing to the septic character of the infection.

ESERIN IN POST-OPERATIVE INTESTINAL PARALYSIS.

BY THEODORE J. GRAMM, M.D., PHILADELPHIA.

(Read before the Homoeopathic Medical Society of Pennsylvania.)

THE condition of threatened or existing post-operative intestinal paralysis is one of such serious import in abdominal section cases that operators have long ago learned to dread the symptoms of its advent. They have also learned that its occurrence cannot always be predicted from the character of the case subjected to operation, for this dangerous condition may arise in certain cases in which the pathological lesion is not nearly so serious as in other cases which recovered. The surgeon, therefore, is concerned for his abdominal section cases until the day has arrived upon which the patients' bowels are usually moved, and until that result has been successfully accomplished: for with this evidence of the restoration of the intestinal function we know that the immediate dangers from the operation have largely been successfully overcome. The desire to attain this first step in successful after-treatment has suggested a number of methods of procedure, and has also led to some diversity of opinion as to the choice of the cathartic

drug. This idea of early post-operative catharsis, particularly by means of salines, rests, I believe, upon the suggestion of Lawson Tait respecting the stimulation of the absorptive powers of the peritoneum by catharsis; thus will not only infection within the peritoneal cavity be limited, but the action of the bowels will also be early restored accompanied by all the good results which naturally follow. The time when the cathartic shall be administered has also been much debated, and the tendency, at least in America, has been constantly to diminish the interval for the bowels to move after operation, so that in some instances the cathartic has been given before the operation. Personally, I am thoroughly convinced that in some cases the cathartic may be given too soon. In many instances there is comparatively little difficulty encountered in getting the bowels to move on the second or third day. But sometimes the attempt is not at once successful, due no doubt to defective absorption and impaired reaction, and then the cathartic may be favorably supplemented by enemata, either simple or compound. Washing out the stomach is also advantageous in overcoming flatulence and allaying vomiting, in removing matters which have undergone fermentation, in counteracting the effects of the excretion of ether through the stomach, and in favoring absorption. But these measures at times fail, and their repetition not only does not succeed, but seems directly to aggravate the general condition of the patient, so that insidiously is brought about a condition of the gravest danger. It is not necessary to dwell upon the distressing details of that awful picture, for every abdominal surgeon has doubtless had occasion to witness the gradually increasing abdominal distention, nausea, vomiting, prostration, restlessness, rapid pulse and rising temperature, sensitive abdomen, and all the while no inclination to stool or the discharge of flatus.

For a long time this condition was believed to depend upon peritoneal inflammation, but autopsies have repeatedly failed to reveal the evidences of inflammation, and bacteriological examinations have often confirmed the negative finding. It is well known, however, that when not due to sepsis, this distressing picture is most often exhibited by patients who have been subjected to prolonged operation, during which the bowels have been long exposed and have had to endure considerable hand-

ling. Their protection during operation is therefore absolutely necessary, and rapid operating, combined with as small an incision as will admit of rapid work, is after all the safest plan of procedure. It has recently been proposed to partially close the abdominal wound as soon as the completion of certain stages of the operation will permit: as, for instance, in hysteromyomectomy after the tumor and uterus have been liberated and raised out of the abdomen: the further manipulations then being completed, while the portions to be removed are lying upon the lower part of the abdominal walls.

The condition of post-operative intestinal paralysis has been attributed to various causes. Olshausen (*Centralbl. f. Gyn.*, 10, 1888), who is said to have first written about it, ascribes it to exposure of the bowels attending prolonged operations. Zuntz (*Deutsch. Med. Wochens.*, 717, 1884) shows that disturbances of the circulation interfere with normal absorption of intestinal gases, and so may lead to meteorism. Hence it occurs in collapse, febrile diseases, peritonitis, and in chronic and acute disturbances of the portal circulation. Experimentally, meteorism is produced in animals by prolonged narcosis. Kader (*Deutsch. Zeitschr. f. Chirurg.*, Bd. 33, p. 60) has shown that ligation of an intestinal loop only develops moderate distention after several days, while ligation of an intestinal loop with its mesentery, or ligation of the mesenteric vessels without affecting the permeability of the bowels, leads in a few hours to pronounced meteorism and an increase to three times the size of the bowel. He also says that disturbances of circulation are a frequent factor in the flatulent colic in horses. Besides discussing these and other related facts in his valuable article, Moszkowicz (*Wiener klin. Wochens.*, 646, 1903) also points out that meteorism, of course, leads to interference in the circulation, and thus a vicious circle is produced. Wiggin (*Jr. Amer. Med. Assoc.*, 627, 1902) and many others believe that meteorism is induced by lesions of the intestinal nerves, and Schlange (quoted by Arndt) thinks it arises reflexly through the splanchnic nerve. In his valuable article, Craig (*Amer. Jr Obs.*, 449, 1904) has more fully discussed this phase of the subject. It appears that Auerbach's plexus of nerves situated between the longitudinal and circular intestinal coats and Meissner's plexus within the circular coat effect an autonomous per-

formance of the intestinal function; Bayliss, and Starling and Mall (quoted by Craig) say that the intestine lives to some extent an independent existence of life. The latter has also shown that severe catharsis in the preparation for the abdominal operation is also responsible in favoring intestinal paralysis, since the bowels are no longer supplied with their accustomed stimulus from intestinal contents. We may feel assured that the causes of intestinal paralysis have been indicated in the above references.

During the last few years it has been found that physostigmin or eserin, derived from the Calabar bean, administered hypodermically, is a remedy of remarkable value in these conditions of post-operative intestinal paralysis, and so efficient and reliable is its action that it may well be regarded as a life-saver, both when the paralysis threatens and also as a prophylactic when exhibited early. The drug has been successfully used for some years in veterinary practice for meteorism and flatulent colic in cattle and horses, in which animals these conditions often prove fatal, as is well known. At the request of veterinarians the drug was added to the German pharmacopœia. The drug was used by them in the form of the sulphates, but because that salt is so deliquescent, Van Noorden (*Berliner klin. Wochensh.*, 1057, 1901) proposed its use in the form of a salicylate, in which combination it is far more stable, is almost equally soluble, and may be divided and preserved in milk-sugar to be used when required. His article also contains a number of references of its former use in atonic conditions of the bowel. It was he also who first suggested its more extended application and its use in surgical cases, and he reported five cases displaying its action. His series include a case of herniotomy, one of salpingitis with tympanitis, an appendectomy, and two cases of typhoid fever.

Arndt (*Centralbl. f. Gyn.*, 273, 1904) says he has successfully used the drug in Breslau and in Posen since 1900, and independently of Van Noorden's suggestion. He says they have used the medicament repeatedly and successfully during the last three years, and in his present article he records the details of five cases.

Vogel (*Deutsch. Zeitsch. f. Chirurg.*, vol. lxiii., 355) also about three years ago made an extended study of intestinal paralysis,

and at that time suggested the use of physostigmin. He has since had frequent opportunity of observing its remarkably beneficial action, and since inauguration its use has not seen a case of post-operative ileus.

Packard (*Phila. Med. Jr.*, May 24, 1902) published some interesting cases and recorded his favorable experiences with the drug. His article contains some valuable historical references of the developing use of the drug.

Since then Craig (*Amer. Jr. Obs.*, 449, 1904) has taken up the subject and has published two articles which have apparently done much to attract the attention of abdominal surgeons.

In 1886 Bauer (*Centr. bl. f. Med. Wissenschaft*, 577, 1886) wrote about the Calabar bean, and at that time called attention to its pronounced and, indeed, selective action upon the intestines of cats, and this effect was produced irrespective of whether the drug was introduced into the body through the blood or by the mouth. His experiments were conducted with a $\frac{1}{40}$ solution in glycerin. This action upon the bowels overshadows its action upon other organs. It seems to attack the bowel-muscle and the contained ganglia. Its action is peripheral, more so even than muscarine. Pal (quoted by Moszkowicz) says that eserine acts upon the same localities affected by curare, and may be regarded as its antagonist. Others have shown that simultaneously with intestinal contraction there is a contraction of the intestinal vessels from irritation of their muscular tissue. Blood-pressure in general is increased.

Eserine has found its most extensive application in ophthalmic practice for the purpose of contracting the pupil. In this respect also it is the antidote of atropine. The physiological action in general of eserine cannot be given here, but should be closely studied, for it is a powerful drug. It might, however, be mentioned that besides its contractile effect upon unstriated muscular fibre as seen in the eye, and especially in the gastro-intestinal tract, it slows the action of the heart and increases arterial tension.

All writers who have used eserine after abdominal section speak of it in the highest terms, and quite a large number of cases have already been reported exemplifying its action. It should, perhaps, be mentioned that this good effect is not claimed for it when the condition is due to actual sepsis. It has usu-

ally been administered in the form of the salicylate in hypodermic doses of $\frac{1}{60}$ to $\frac{1}{40}$ of a grain. This dose may be repeated, but is usually unnecessary since its action is generally apparent within an hour. In a number of the reported cases the drug was given on the day following the operation on the appearance of meteorism, and particularly after the failure to obtain relief from cathartics and high enemata. Vogel (*Centralbl. f. Gyn.*, 700, 1904) calls attention to the fact that physostigmin should be a prophylactic against ileus and advocates its use immediately after the operation. Craig speaks favorably of its administration during the operation so that its action may anticipate the depressing effects of the operation. In his second article Craig (*Amer. Jr. Obs.*, 350, 1904) also speaks of administering the drug combined with the cathartic, thus: Aloin, gr. $\frac{1}{5}$, extr. belladonna, gr. $\frac{1}{8}$, strychnia sulph., gr. $\frac{1}{60}$, and eserine salicylate, gr. $\frac{1}{100}$. He begins on the day succeeding the operation and administers a tablet each night.

Personally, I have witnessed the action of eserine in two cases of hysteromyomectomy, in which calomel in divided doses followed by a saline had failed. This was supplemented by enemata, simple and compound, and repeated high enemata, but without success. The patients then beginning to show the usual dreaded symptoms of restlessness, meteorism and vomiting, eserine salicylate, $\frac{1}{40}$ of a grain hypodermically administered, was followed by complete relief in the discharge of flatus and stool in less than one hour. On the whole, this use of eserine appears to be the most valuable recent contribution to the successful after-treatment of abdominal section cases.

ECZEMA.—Dr. Van den Neucker (*Journal Belge d'Homœopathie*) finds that the common remedies, sulphur, graphites, lycopodium, rhus tox, will effect improvement up to a certain point and then the improvement will stop. The too often forgotten remedies, silicea and thuja, will sometimes do much better. Petroleum is a valuable agent, particularly when the pruritus is intense and when the disease is centered about the genital region. Viola, "so astonishingly successful in impetigo," is valuable also in this analogous condition. Local treatment should accompany the internal medication, and for this Van den Neucker finds that the popular preparation, rendered hedge-hog fat, gives the best results of all. The use of this "popular preparation is in this country at least, however, attended with some difficulty."—*Journal Belge d'Homœopathie*.

STUMBLING-BLOCKS IN MEDICAL PRACTICE.

BY WILLIAM W. SPEAKMAN, M.D., PHILADELPHIA.

(An Address read before the Hahnemann Institute.)

I AM going to ask you to remember that the musical critic is not always a composer of successful scores, nor the literary critic a poet or a novelist. So, also, I will ask you to remember that one who essays to give suggestions for your success is not of necessity one who puts his precepts into practice.

He is more usually one who has failed because he did not see in the beginning what he is now endeavoring to show you—the stumbling-blocks.

If foresight were as good as hindsight, or if, with Burns, we had some power “the gift to gee us to see ourselves as others see us,” then warnings and suggestions would be unnecessary.

I take it that the majority of you have some definite objects or points of view in mind.

You may not have been able to work out the detail, you cannot know as yet the how or the way, but you doubtless have before you professional achievement or financial success as ultimatums. You are spending valuable time and money to prepare yourself for the practice of a profession of responsibility and importance. Is it not, therefore, worthy of some thought and consideration on your part to study the outside or auxiliary means of assistance? You must know something more than the science of diagnosing disease, and something more than the art of curing it. You must know human nature, and you must have patience, tact, morals, manners, sympathies, culture, and common sense.

There is no department in this or any other college that can give you these. They are only within your own grasp, but they are free for *all* who strive for them. Bear in mind, gentlemen, that a large percentage in every occupation in life should have chosen some other vocation. There are merchants who are failures who would doubtless have had splendid medi-

cal careers, and medical failures who would have achieved marvels in mechanics and engineering. *Most of us* are, at the best, misfits, and the man who *has found his work, has found his life*. In proportion to whatever else you should have been, in that proportion you are handicapped for the practice of medicine.

Dr. J. G. Halland, in his admirable "Essay on American Public Education," says: "As for the medical profession, I tremble to think how many enter it because they have neither piety enough for preaching nor brains enough to practice law. When I think of the great army of little men that is yearly commissioned to go forth into the world with a case of sharp knives in one hand and a magazine of drugs in the other, I heave a sigh for the human race. Especially is this lamentable when we remember that it involves the spoiling of thousands of good farmers, while those who would make good professional men are obliged to attend to the simple duties of life, and submit to preaching that neither feeds nor stimulates them, and medicine that kills or fails to cure them."

Possibly some of you have already asked yourselves this vital question, and doubtless more of you will do so in the next five years.

I am not an advocate of the old-fashioned advice of "shoemaker, stick to your last," if there is absolutely no adaptability or aptitude.

It takes some moral courage to tell your mistake to the world, and have them call you vacillating, and visionary, and a rolling-stone.

But, gentlemen, you have your own life to live, and you have no right to perpetuate a step which you should never have taken. You go forward to wrestle with disease and death, and if your heart and soul are not in the work, and you can't bring them into it, then it becomes not only your privilege, but your duty, to stop. You may have had no choice in the selection, or no distinct bent at the time for any special work. At any rate, you could not possibly have had a deep insight or definite knowledge as to what was before you.

On the other hand, I would not have you lightly toss medicine aside on mere presumption that you do not like it. Valuable time and means have already been spent.

Possibly pecuniary sacrifices have been made by parents or

yourselves that cannot now be lightly disregarded, and which preclude the possibility, for the time at least, that you shall make the change.

But I can imagine no bondage or servitude more terrible than a man chained to a profession he detects and despises, with the consciousness that within him are the energy and enterprise for success in other lines. The same friends who would sneer at your dropping medicine would congratulate you upon success in something else.

Men in colleges, instead of loafing around from July until October, should spend the time in investigating the various enterprises in which men engage, so that by the time of their graduation they should have some comprehensive knowledge, and in addition know the value of a dollar.

Once in practice, let me impress upon you that character in medicine, as in all other things, is ever the keystone of success. Without it you cannot merit your own self-respect, and without self-respect you cannot hope to secure the respect of others.

Character is the poor man's capital and, gentlemen, doctors are usually poor men. Upon your character will depend your class of practice.

You cannot hope to succeed in a cultured and a refined community unless you merit the confidence of those who are to become your patrons.

They may call upon you in an emergency or employ you because you are the least objectionable at hand, but rest assured, if you lack stability or the instinctive characteristics of a gentleman, they will desert you at their first opportunity. Character, as some one has aptly put it, has a distinct commercial value.

The smaller the community in which you locate, the more intimately will your patients and neighbors know you.

Therefore do not seek to deceive them; be honest, natural and sincere.

To resort to artifice, or to assume manners which you think taking and suitable, will alike result in failure and make you a laughing stock.

Do not, therefore, assume that you are busy when you have little to do, or carry your medicine case with you when you go for a walk, or drive through the town as though you were an ambulance or a patrol driver.

Do not buy a team until the conditions warrant it. Do not invest your resources in showy office fixtures or instruments to impress your patients.

The salesmen who suggests such a thing to you insults your own ability and intelligence. The last analysis of this is fraud. Be yourself the drawing card in your own office. If your personality and worth are insufficient to attract without deception, either go out of business or be an out-and-out quack.

It is in nowise necessary that a man of cheerful temperament adopt an unnatural solemnity, but guard yourself as to when to joke and when not to. The man who can never resist the temptation to be funny or make a pun is as unbearable as the individual who has no conception of humor nor appreciation of wit.

Cultivate, then, not special manners for special occasions, but so guard your conversation and actions that they become the habit of your life. It is no indication of genius or greatness to say rude and shocking things, or to slightly speak of what others hold sacred, or be sarcastic in speech or cynical in manner.

Recollect that the family are more vitally interested in the case than you, and they will watch you and hang on each word that you utter *pro* or *con* as regards the outcome of the disease.

Always remember, too, that you are attending something more than a diseased condition, a human life is in your charge. This must never interfere in your judgment or treatment, but nevertheless in your manner and deportment to the family remember it. On the average, I think a dentist should have the toothache once a year, and the physician take a little of his own medicine, just as a reminder.

See that your offices be neat, clean and furnished in good taste. It is not in good taste to have a showy array of instruments and appliances simply to impress the public. See that your personal appearance be above honest criticism. Do not wear spotty clothes and unkempt linen; you cannot afford to.

A doctor cannot have dirty finger nails and unpolished boots, an untidy office and be clean in his surgery, any more than a man can be careless and slovenly four-fifths of his time and neat and orderly the remaining one-fifth.

If order and neatness be not instinctive with you, then make them your second nature by sheer force of habit.

Do not become alarmists, and with grave and solemn looks upset the whole family and half the neighborhood. I know of one physician with whom every case at the first visit has a *most* serious aspect. At the second, vast improvement; marvelous medicine; called just in time.

Remember, gentlemen, three-fourths of your cases would get well without you, and one-half of the remaining get well in spite of you, and the balance die.

At best, we but assist nature; good nursing, rest, the correction of errors in diet, are often sufficient in themselves to effect the cure. As soon as your case can be safely left cease calling. This is, of course, easier said than done. On the one hand you may be accused of neglect, on the other of running up a bill. In this, as in so many instances, no definite rules can be given to suit all cases, and it is one of the many conditions that give opportunity for the exercise of judgment and common sense.

"I have heard," said one patient, "that Dr. Smith continues to call when the patient is out of danger." "Impossible," replied his friend, "so long as Dr. Smith calls the patient is in danger."

Patients can become addicted to the doctor and medicine just as they can acquire any other habit, and it is partly this knowledge that makes physicians careless in prescribing for minor ailments. A gentleman once consulted an eminent M.D. After a perfunctory prescription the patient said, "Doctor, I don't believe you remember me. Do you recollect gunning with me in Maine two years since?"

"Why, of course," replied the man of pills. "Now throw that stuff away and let me see what ails you."

Do not make the office visit of the patient, or your visit to the house the opportunity for a social call. Do not contract the fatal habit of talking your hobby.

Your patients may be interested to hear of your automobile, your camera, or what you did on your vacation. They may even appear delighted to hear that your baby has cut another tooth, but they will certainly object to paying for it. Neither rush in and out of the sick room, leaving the family to feel that

you have given them scanty service. When your examination of the case has ended and your directions are given, bring the call to a close.

Be precise in your prescriptions and advice, and when you call again see that your instructions have been followed.

Do not share your doubts and uncertainty in the case with the family; it can in nowise help you and will only disturb their confidence.

There will be many occasions when you will be asked the cause for this or that symptom. In most instances you will not know, and in any event it is unnecessary to go into elaborate explanations which the family cannot understand. In the early stages of many diseases, especially in children, an absolute diagnosis is impossible. Therefore do not know too much. Do not make snap diagnoses, or assume dash and brilliancy.

An aspirant for medical honors lost all possibility of success in a western town by a hasty diagnosis. Consulted by a bare-footed cowboy, for a bright circumscribed redness of the foot, the man adjusted carefully his eyeglasses and without a moment's hesitation said, "That," sir, "is erysipelas."

"Ery-H—," said the man, "that's a bee-sting."

Far be it from me, gentlemen, to suggest that any student or graduate of Hahnemann learned to smoke or imbibe within these halls. It is not upon the curriculum, and if it be the case he must have received the tuition somewhere else. However, do not go into the sick-room reeking with the fumes of stale tobacco.

Habitual smokers grow unconscious of the atmosphere which surrounds them, or that it is nauseating and offensive to many people. If you smoke, let it be after your labors are over or when it will not constitute a nuisance. Do not operate while the fumes of a cough syrup containing alcohol are upon your breath. It may not in the slightest cloud your judgment or render you the less skilful; but should the operation have an unfortunate termination, the facts will be recalled, and your reputation and fair name will receive an undeserved and unmerited blemish.

When you locate, call upon your fellow-practitioners. Do not feel hurt if they are not overcordial or if they make rather gloomy predictions for your success.

In your subsequent relations with them cultivate a feeling of good fellowship where you can, and if you find one who is unworthy of your friendship and confidence you can at least be worthy of his.

Do not talk about, and much less against, your brother practitioner, and do not listen to patients who would pour tales in your ear about him. Later on they will be telling others of you.

Do not be hypersensitive about losing a case, either to the doctor or the patient's family.

Recollect your cases were formerly somebody's patients.

They are your families only while under your care.

When they have paid your bill the transaction is closed; they have as much right to employ some one else another time as you have to change your grocery man.

You will save yourselves much mental distress if you bear this in mind, more particularly if you locate in a small town, where everybody knows everybody else's business.

When your fellow-practitioner leaves you in charge of his practice for a few days, or weeks, have a full understanding with him. Some of his cases may fancy you and claim their right to come to you at their next illness. He should bear this in mind and accept this possibility, and not accuse you of grand larceny.

The patient of the doctor living at the other end of the town may drop in for an occasional prescription, because it is simply inconvenient to go so far. All these matters will have to be adjusted on the plane of common sense.

There are always, unfortunately, small, narrow-minded, narrow-souled, selfish and jealous men with whom there can be no reasoning or possibility of understanding.

For the most part they are conceited nobodies, more important in their own estimation than in anybody else's, and are not worth the time it takes to talk about them.

Do not feel hurt if your personal friends, and those upon whom you relied for support, fail to patronize you.

They may be as generous as Artemus Ward, who was willing to sacrifice all of his wife's relations in the cause of the war,—but they may have a natural love for their own families and feel it their duty to protect them.

Perhaps, too, they wish you every possible success, but are unwilling to jeopardize the friendship that exists between you.

If you are careful to avoid talking of irrelevant matters to patients, be doubly careful not to discuss the ailments or affairs of one patient to others.

I know of a lady who recently consulted a prominent gynaecologist, and was shocked to hear him mention cases by name at such a rate that it made her tremble to think how her case and name would be cited to succeeding callers.

Guard yourself by the control of your own tongue, and early make a reputation for reticence.

There is absolutely nothing a woman will value more than to know that the confidences of the office and sick-room are inviolate.

Do not refer cases which can afford a consultation fee to free dispensaries. It is an abuse of medical charity designed for the very poor, and an imposition on your fellow-practitioners.

Besides, you show him the way for one ailment; he will not only go for others, but will take his friends with him.

Do not, gentlemen, accept a commission from instrument makers and refracting opticians or from anyone else on your patients' trade. It is an unholy alliance of trade and profession. Your legitimate fees belong to you and nothing else; by doing this you become the agent of the other party and place yourselves under obligations to him.

Never refuse a consultation where the family request it. They may feel if you do that you have something to conceal concerning your treatment or diagnosis, and should the case terminate unfavorably they will certainly censure you for your overconfidence.

Indeed, in cases where consultation may seem necessary, rather anticipate the family and make the suggestion first, and let it be early and not when the case is dying.

Choose for your consultant one in whose honesty and ability you have full confidence. Let the family understand that it is for them and not for you that the conference is to be held, and that they, not you, must bear the expense.

Let your consultation be a reality and not a farce. Already the laity are skeptical as to consultations. They feel with some truth that the consultant too often agrees in diagnosis and past treatment.

Frankly tell your consultant that if you have erred you at least wish to know it and profit by it in the future.

Do not expect a consultant to stultify himself and uphold you in gross negligence and error, possibly so palpable that the family is keenly alive to them.

It is no sign of weakness or ignorance to ask for a consultation: it is rather an evidence of conscientious fidelity to duty.

Too often the specialist sees the case after irreparable damage has been done, as in plastic iritis, glaucoma and dozens of other diseases.

Procrastination is another stumbling-block to avoid; the tendency to put off the inevitable and the disagreeable task. "Men amount to nothing," said Lyman J. Gage, "until they can establish a system which shows that they are not victims of procrastination in the slightest way."

During the first months of your practice you will find plenty of spare time on your hands. Utilize this for exhaustive study of the cases that you have, or in preparation for the opportunities of the future.

Spare time, except that needed for exercise, spend in your office, and always, when possible, be in during your office hours.

It is by no means necessary that you eschew all social life, but do not make a practice of going continually.

Neither is it necessary that you remain silent or neutral in matters pertaining to the good and welfare of your citizens or your government. That man must be servile indeed who sacrifices his right of speech that he may avoid making enemies. But I would warn you against the engagement in politics merely as a matter of pastime. The duties of the busy man of general practice preclude its possibility.

In your relation to your patients be courteous, but firm.

Early impress on your patients that you do not charge them for results, or for cures. Reputable physicians charge for their time and their best effort. The human system is too variable and complicated for you to guarantee its perfect repair.

A man may guarantee to mend a roof, or paint a house, or make clothes to fit, but you cannot guarantee the outcome of a pneumonia, or even of a cold.

Do not allow patients to do their own prescribing and buy medicine from you, or to belittle your work.

As you would avoid debt, make your collections promptly and keep your books correctly. Do not allow months to elapse before sending the bill, when the service you performed is forgotten and the gratitude weakened. I believe, as a rule, monthly statements are more satisfactory to patient and physician. It is not a demand for payment, but a statement of indebtedness, and a misunderstanding can be more readily adjusted then than it can three or six months later.

Where you have to perform an operation, or where the ultimate charge is likely to be a considerable one, it is often well to mention the matter in advance; you will then at least avoid criticism, what happened to the physician who cured his patient only to have him drop dead when he presented his bill.

Pay your own bills promptly; nothing is so damaging to a physician as the reputation of owing the tradesmen of his own town. Remember there are two classes of debtors, as a rule, those who can't pay and those who won't pay. Besides, those to whom you pay cash will be more likely to settle promptly with you.

Remember that your income is the income of one pair of hands. Remember that your factory shuts down when you go off for a little relaxation, or for sickness or death.

You are not in it with the merchant who can employ thousands, or the manufacturer who can run day and night.

Your profession is a business asset of no value to your family, nor to be continued at your death for their benefit.

You are incapacitated for future work when you reach 65 or 70, and therefore it behooves you to take care of the money that you make.

Doctors are proverbially poor business men. They are the recognized victims for schemers and promoters. Many men by diligence and toil, by economy and self-sacrifice, have accumulated, not large fortunes, but enough to keep them comfortably in their old age, only to lose it in a single ill-advised investment in mines or stock, about which they knew nothing more than was told them in a glittering prospectus. What you are likely to save after paying your bills will accumulate too slowly for you to risk it in the fluctuations of the stock market or the uncertainties of speculative enterprise.

EDITORIAL.

EYESTRAIN.

IF the general practitioner and lay aspirant for medical knowledge have not become acquainted with the subject of eyestrain, and its far-reaching consequences, it is not the fault of the medical press, for there is hardly a journal which has not, at some time within the immediate past, presented one or more papers on the subject. From having been too much neglected the effects of eyestrain seems to have swung into the opposite extreme, and to be too much emphasized. Far from desiring to detract from the importance of a recognition and rational treatment of this condition, we would like merely to draw renewed attention to a phase of the subject which is in danger of being overlooked. For years symptoms, now universally regarded as being due to errors of refraction, were misunderstood and unsuccessfully treated. At first the ocular symptoms, more especially those dependent upon hyperopia, were supposed to be incapable of amelioration except by enforced rest, and often even by total abandonment of any occupation requiring continued use of the eyes. The relief from glasses having once been discovered, the whole world sought spectacles, not only for the benefit of the asthenopic symptoms of the eye, but for ailments occurring within an ever-widening circle. From mere "weak eyes" to neurasthenia and epilepsy almost every ill to which man is liable has by one or another enthusiast been ascribed to some ocular defect. Where an error of refraction proved refractory to discovery, the external muscles were declared to be at fault, and the sound of their cutting and clipping, advancing and putting back was heard throughout the length and breadth of the land. Most chronic or intractable cases were referred to the oculist, who, it was hoped, might discover in the eyes something abnormal which might be

treated by glasses or operation, and bring relief of symptoms which had baffled all other attempts at cure. We seem, even at the present time, to be in the midst of this extreme tendency. While we would not venture to deny that eyestrain brings with it, in many cases, a long train of seemingly remote consequences, we only wish to present the other side of the picture, the recognition of which is, we think, of equal importance. We are not all eye. Although it is easy to see that any great deviation from the normal in an organ such as the eye, which is in almost constant use, may be followed by the most varied disturbances in our general condition, yet equally evident is it that our general condition may, and indeed must, have its effect upon the eye, and upon the manner in which it performs its functions. The fact that, in a case of disturbance of health, examination shows that there is at the same time also some ocular defect, is not sufficient proof that this latter is the cause of the former. Nor is this proved beyond reasonable doubt even if a correction of the ocular defects is followed by an amelioration of the other symptoms, but only that one obstacle to the restoration of the general equilibrium of function has been thereby removed, allowing other measures to manifest their full effect. Defects in the visual apparatus which have for years been overcome without conscious effort or inconvenience may, in certain states of the system, become sources of annoyance and distress, manifested perhaps primarily in the eye, but liable, through the strain on the nervous-system, to aggravate other existing conditions.

It is not a matter of indifference in our treatment, both as to its character and extent, whether we regard the eyestrain as the cause or only as a concomitant of the other remote symptoms. If it be the cause it is our duty to remove it entirely, trusting that with its disappearance all other symptoms will cease; but if it be only a concomitant then our efforts will be mainly directed to restoring the general health, while we at the same time afford only temporary and partial relief to the eyestrain. By this method of procedure we avoid weakening still further the powers of the eye, and rendering permanent, by want of use, what is only a temporary inability. With the general restoration to health and strength, the power to use the eyes without discomfort will gradually be restored in spite of

existing defects. This regaining the power to exercise the function of vision in a normal way by overcoming incurable conditions, we regard as a far higher and more successful result than merely to neutralize defects by artificial means. While neither is a *cure* of the underlying condition, the latter is palliation pure and simple, while the former more nearly fulfills the idea of a cure of symptoms.

Any one who, from personal experience, has become acquainted with the discomfort and inconvenience attending the use of glasses, will be desirous of postponing as long as possible their use in others. While thousands have been relieved of distressing symptoms and have been enabled to pursue their chosen occupations with comfort since the knowledge of the application of glasses for the relief of asthenopia has become general, just as many thousands have been doomed to years of disfiguring and discomforting "spectacle wearing," which might have been avoided or postponed had the principle of practice which we have endeavored to elucidate been appreciated. Just as to the gynæcologist all women are womb-men; and just as there is to the sphincterologist but one narrow way to perfect health, and but one planet in the medical firmament, and that the most remote one, so, for the oculist, the eye generally occupies the centre of the stage, and is made to rule the whole human body, together with its varied ailments. It is against this all too prevalent one-sided specialism that we are contending.

The general practitioner is well within his rights when he attacks even ocular symptoms with general remedies, provided he have enough knowledge of the eye and its functions to recognize his own limitations in its treatment. We do not here refer to those sad cases where glaucoma has been diagnosed and treated as trigeminal neuralgia, bilious headache, even severe conjunctivitis, or cataract, nor to those other deep-seated inflammations of the eye which require the most careful and experienced treatment by a specialist if vision is to be preserved. We have in view rather the simpler, less dangerous asthenopia, and the very remote constitutional symptoms ascribed to ocular defects which have never given rise to any local disturbance, and to their too hasty and often unnecessary relief by the prescribing of glasses and by operation.

SPECIALISTS AND SPECIALISM.

THE following extract from the speech of Dr. Charters J. Symonds, before the British Medical Association, is such an excellent comment upon specialists and specialism, that we have quoted it *verbatim* :

“ ‘There must’ (said Dr. Billings) ‘be specialties and specialists, and the result will be good and evil, but the evils fall largely upon the specialists who have an insufficient general education, who attempt to construct the pyramid of their knowledge with the small end for a foundation.’ There can be no question that the only way to check the evil of specialism is to bring to its practice a wide general education, and a training in the general subject of which it forms a part.

“ If this were always considered essential there would be less tendency to hasty publication, to claims for priority, and even notoriety, and to the confusion that must result from undue haste. The observation is apt to be deeply impressed with the bias of the observer. ‘In truth,’ said Paget, ‘the fault of specialism is not in narrowness, but in shallowness, in the belief in self-sufficiency with which it is apt to be associated.’ If the field of any specialty be narrow it can be dug deeply. In science, as in mining, ‘a very narrow shaft, if only it be dug deeply enough, may reach the richest stores of wealth, and find use for all the appliances of scientific art.’

“ Nothing better expresses the evil and the good than these words of one of our greatest and wisest thinkers in medicine. The facts gained by such special search must, when brought to the surface, be submitted to the test of general knowledge, and if the expert does not possess this knowledge, then the evil is likely to prevail.

“ So in the special branches into which the practitioners of medicine are being divided there arises, it seems to me, a greater need for the presence and influence of the general practitioner, whose wider knowledge of his patients’ ailments must

prove of invaluable assistance to any special worker. Too much are the public neglecting this all-important association.

"As Paget said again, 'In all research it is well that each apparent fact should be observed by many; for things are not what they appear to each one's mind. In that which each man believes that he observes there is something of himself; and for certainty, even in matters of fact, we often need the agreement of many minds, that the personal element of each may be counteracted.'

"This, then, is the object of our meeting to-day, to hear the words of research; to criticize the marshaling of facts, and the deductions drawn from them. Thus will our range of work be widened, our interest deepened, our appreciation of the views of others will be clearer from the personal acquaintance, and our respect and regard for each other deepened."

A "PROPHYLACTIC" CORRECTION.

BY JOSEPH C. GUERNSEY, A.M., M.D., PHILADELPHIA, PA.

IN the November, 1904, number of the HAHNEMANNIAN MONTHLY is an article from my pen entitled, "The Prophylactic Power of Some Drugs." On page 804 I stated, "Dr. Wm. C. Goodno advises the administration of gelseminum θ in three to five drop doses, every two hours, at the very beginning of 'a cold,' etc. The foregoing is a misstatement on my part.

What Dr. Goodno does preach and practice is to give gelseminum θ in *one-drop* doses every *one hour* as practically sure to break up "a cold" in its incipency.

Dr. Goodno considers "three to five drop doses" as excessive and liable to do harm.

SOME NEW LACHESIS.—We understand from one of our exchanges, that Messrs. Boericke and Tafel expect to have some new lachesis before a great while. One of their correspondents has secured for them a fine specimen of the Lachesis Trionocephalus, and if the New York authorities will permit the landing of the reptile, no doubt but that these enterprising pharmacists will soon be listing "Lachesis, vintage 1904."

GLEANINGS.

OSMIC ACID INJECTIONS FOR RELIEF OF TRIFACIAL NEURALGIA.—(Murphy.)—From clinical reports, personal experiences, the following conclusions are reached :

1. That trifacial neuralgia, *tic douloureux*, is not the result of a pathological entity, which has so far been definitely determined.

2. The tendency after all types of operations, with the possible exception of the sensory root behind the ganglion, is to recurrence of the disease.

3. This is probably due to the regeneration of certain nerve elements following the deep operation, and anastomosis and retention following the superficial.

4. Sudden shocks and irritation to the terminal filaments of the trifacial nerve not infrequently cause an immediate and occasionally a permanent cessation of the neuralgic pain.

5. The mortality from the superficial operations is practically nil. The mortality from the active cranial operations is great. The hazard is greater than should be taken in a case which does not of itself jeopardize life.

6. Injections of osmic acid in 1- to 2-per-cent. solution into the nerve trunks relieve pain immediately, and in a large percentage of cases for a long period of time.

7. The injections of osmic acid into the superficial tissue for peripheral neuralgia should be abandoned, as the nerve trunks are easily located, and there is no danger of superficial necrosis following such operation.

8. It should never be injected into a motor nerve or a motor nerve area, and therefore never into the spinal nerves, except in amputation stumps.

9. It produces a local necrosis of the tissue into which it is injected, and even of the wall of the foramen. This necrosis does not suppurate unless the area is exposed to mouth infection. In that case, the suppuration often continues for weeks draining into the mouth, giving no special inconvenience and in no way interfering with the final result.

10. The best results are obtained with a 1½- to 2-per-cent. solution. This should be injected in many places into the nerve trunk and also into the foramen.

11. All of the nerve branches should be injected—the palatine, lingual, mandibular, superior maxillary, infraorbital and supraorbital. They can all be exposed through mouth incisions, except the supraorbital. Many times there are three or four divisions of the supraorbital, and they should be searched for carefully and each injected. Occasionally it is necessary to inject the auricular branch.

12. The posterior palatine is not so difficult to inject as one would at first imagine.

13. The foramina can and may be injected without anæsthesia or incision. The procedure is quite painful, however, and is not certain in its results.

14. The injections can be made with local or general anæsthesia. I prefer the general.

15. The injection is free from danger.

16. Judging, theoretically, from the experience with incisions, resections and ganglion operations, the relief should not be permanent after the injection of the osmic acid. From clinical experience up to date, however, and particularly from Mr. Bennett's showing, the fact is that many cases are permanently cured. Time alone must determine the final result of this treatment. Its ease of application, its nil mortality and its immediate results forcefully commend its use.—*The Journal of the American Medical Association*, October 8, 1904.

William F. Baker, A.M., M.D.

HEADACHE AND DISEASES OF THE NOSE AND NASO-PHARYNX.—(Wilkinson.)—The writer has arranged the diseases of the nose and naso-pharynx which produce headache. The first of these is a morbid condition of the mucous membranes, under which heading is acute and chronic rhinitis, with their varieties, *simple*, *specific* and *neurotic*. Headache is one of the most constant symptoms of acute rhinitis. In specific rhinitis, in its incipency, there are the symptoms of acute simple rhinitis, but of decidedly more exaggerated form. There is more pain, more headache and greater constitutional disturbances. This is especially true in the glandular, gonorrhœal and diphtheritic types. The other specific rhinitis, the tuberculous, those of lupus, leprosy and larvas, may vary very much in their symptoms in different individuals. In some cases they are decidedly acute, while in others they are chronic. Headache is not so common in chronic cases. In the acute form headache is quite a common symptom and may be due: (a) local conditions due to obstruction of canal from inflammatory change; (b) a constitutional condition due to infection from bacteria present. Under the neurotic types are placed hay fever, asthma and hyperæsthetic rhinitis. The writer calls attention to two forms of headache in asthma. The first is rather acute and often severe, due to pressure on nasal canals from stenosis. The second form is a dull, languid headache, which occurs after a night spent in asthmatic attack, due probably to loss of sleep, close room or inhalation used. Morbid conditions of the osteocartilaginous framework are constant sources of headache. Under this heading we have deflected septum, exostoses, synechia and caries. Headache is also a constant symptom of sinus inflammation, as is a unilateral nasal discharge, purulent in character. Of the benign growths of the naso-pharynx which may cause headache we have adenoids, polypi, syphiloma, enchondroma, papilloma, osteoma. Malignant growths are carcinoma and sarcoma.—*New York Medical Journal*, October 1, 1904.

William F. Baker, A.M., M.D.

VENEREAL WARTS.—(Rohrer.)—From a most admirable study of the above subject, the writer deduces the following conclusions:

1. Venereal warts, so-called, are hypertrophies rather than tumors. They are inflammatory, due to irritation.

2. These papillary outgrowths constitute from 1-2 per cent. of all cases of genito-urinary disease; 60 per cent. are venereal and are due to acrid, irritating discharges; the remaining 40 per cent. are non-venereal and due to uncleanliness and maceration of their seat alone.

3. They are not confined to mankind, dogs and horses also are subject to them. Ruminants are exempt.

4. When small, the best treatment is palliative ; when large, they are best removed surgically. Even then recurrences are frequent.

5. The term papillo-fibroma most correctly defines these interesting pathological new formations.

6. The question as to whether or not venereal warts are infectious or contagious is, as yet, purely a speculative one.

7. Numerous Gram-staining bacteria are seen embedded in the epithelium and in the lymph channels. The demonstration of micrococci and bacilli in these lesions suggests that the hypertrophy or hyperplasia of tissue may be due to irritating products of these bacteria.—*The American Journal of the Medical Sciences*, November, 1904.

William F. Baker, A.M., M.D.

PNEUMOCOCCUS ENDOCARDITIS.—(Preble.)—In an exhaustive article the writer thoroughly discusses this subject and gives us a condensed statement in some thirty pointed paragraphs.

1. Endocarditis complicates pneumonia in about 25 per cent. of all cases and in 5 per cent. of fatal ones.

2. Endocarditis due to pneumococcus makes about 25 per cent. of all cases of bacterial endocarditis.

3. The pneumococcus may cause endocarditis of any degree of intensity, but in over three-fourths of the cases it is of a severe or acute malignant type.

4. The exudate is usually massive, but there is less disposition to ulceration and perforation of the valves than in endocarditis due to streptococci or staphylococci.

5. The endocarditis complicating pneumonia is almost always due to pneumococcus, although it may be due to other bacteria.

6. Pneumococcus endocarditis is much more often left- than right-sided, but involvement of the tricuspid and pulmonary valves occur about four times as often as it does with endocarditis in general.

7. The pneumococcus attacks the aortic valves more often than the mitral and relatively twice as often as the other organisms, commonly causing endocarditis.

8. The pneumococcus attacks the mitral valves relatively only half as often as other organisms, while it attacks the tricuspid about twenty times as often.

9. Infarcts occur in about one-half the cases.

10. Meningitis complicates the pneumococcus endocarditis in about 60 per cent. of cases.

11. Pneumococcus endocarditis is relatively twice as common in females as in males.

12. Endocarditis complicates pneumonia much frequently after 30 years of age than before.

13. An old heart lesion favors the development of pneumococcus endocarditis.

14. The clinical picture of pneumococcus endocarditis does not differ from that due any acute endocarditis.

15. The endocarditis may develop before, during or after the pulmonary involvement, but the pneumococci may infect the endocardium without there being at any time any involvement of the lungs.

16. A considerable number of cases show a period of normal temperature between the fever due to the pneumonia and that due to the endocarditis.

17. This afebrile period is rarely longer than a week, and is usually only three or four days.

18. The endocarditis may be afebrile.

19. The duration varies from a few days up to months.

20. The pulse is usually rapid and irritable, but bradycardia is more frequent than in other forms of acute endocarditis.

21. Subjective symptoms referable to the heart are usually absent, except in cases where there is an old heart lesion, when they are due to old rather than the fresh endocarditis.

22. Physical signs of the endocarditis are often entirely lacking.

23. Signs and symptoms from other organs are either those common to infectious processes or are due to infarcts, in which case they vary with the size and site of the infarct.

24. Leukocytosis is frequently absent.

25. Blood-culture carefully and perhaps frequently repeated will show the pneumococci.

26. The diagnosis is difficult, impossible, in fact, in cases in which the endocarditis develops during the course of the pneumonia, which is followed by an irregular temperature not sufficiently accounted for by some other complication, such as empyema.

28. Case 11 of the personal cases is the only one so far recorded ending in recovery, admitting, for the sake of argument, that case 1 is really not what it was supposed to be. The case of Wells and Robison lacks the demonstration of the pneumococci.

29. The prognosis is extremely grave, for 60 per cent. of the cases have a complicating meningitis, but it is probable that the percentage of recovery is higher than the reports so far published would lead one to infer.

30. The treatment consists merely in rest, absolute rest, with good supporting food and stimulation as required.—*The American Journal of the Medical Sciences*, November, 1904.

William F. Baker, A.M., M.D.

THE TREATMENT OF PLEURITIS.—Lankester finds that in the treatment of these cases great relief is afforded by strapping the chest with oxide of zinc plaster. This plaster is far preferable to the old rubber adhesive plaster, as it causes little or no erythema.

The old routine method of painting the side with tincture of iodine or the use of other counter-irritants he has discarded, since he has found the strapping of the side so much superior to any other mode of treatment. Even this simple matter must be done properly: the straps should be about two inches wide, and be long enough to extend from the spine to the mid-sternal line or a little over; they should overlap about three-eighths to one-half inch, and must be put on snugly and tightly, the lung being emptied of air on applying each single piece of the strapping. If it is done in a slovenly or careless manner it had better not be done at all.

The author thinks the old-fashioned and much-abused blood-letting is of value in sthenic cases.—*St. Paul Medical Journal*, July, 1904.

REPORT OF TWO CASES OF TETANUS CURED BY TETANUS ANTITOXIN.—Rogers reports two cases of tetanus cured by the use of this agent. He believes there can be no doubt of the efficacy in tetanus of injections of antitoxin into the substance of the motor nerves of the part of the body primarily infected and into the spinal cord. From the wonderful and rapid change for the better, noted after injecting the antitoxin into the dorsal cord in one seemingly hopeless case, it might be argued that the motor nerves could be neglected, but in view of the experiments by Meyer and Ransom this would seem unsafe. The exposure of the nerves in the axilla or high up in the thigh is simple and adds nothing to the gravity of the situation, and in the two cases under the writer's care really seemed very advantageous. His neglect to inoculate the obturator nerve in one case he is convinced led to an increase of the symptoms. That they were checked by injecting the dorsal cord only goes to show the necessity of producing a wound of nervous tissue to secure entrance of the antitoxin. This, by the way, seems to be confirmation of a physiological fact, or perhaps theory, namely, the complete isolation of at least some nerve-cells from the circulating blood. The tetanus toxin and the antitoxin can only reach these nerve-cells through nervous tissue, and normally this course begins with the terminal filaments of the axis cylinders.—*Medical Record*, July 2, 1904.

ETHYL CHLORIDE AS A GENERAL ANÆSTHETIC: SUMMARY.—(Craig).—

1. The use of ethyl chloride for purposes of general anæsthesia has passed the experimental stage.

2. The position of the drug, so far as danger is concerned, has not as yet been definitely determined; though taking all available statistics into account, it can be reasonably assumed that it is safer than chloroform, probably safer than ether. The future will, no doubt, accord it a place somewhere between ether and nitrous oxide.

3. Only the pure preparation of the drug should be used for general narcosis.

4. The best method of administration is some form of the "open" method, the Ware mask or the ordinary gauze compress, the former requiring a smaller amount of the drug.

5. Its use is especially indicated in young subjects.

6. It is not suited for prolonged operations, and as it does not produce complete muscular relaxation it cannot be recommended for reduction of dislocations, or possibly fractures, and for divulsion of anal sphincter.

7. It is indicated in various brief surgical proceedings occurring in the dispensary service of general surgery, in short operative measures of gynecology, in a fairly wide field in obstetric practice, and in much of the operative work on the nose and throat.—*American Medicine*, October 1, 1904.

William F. Baker, A.M., M.D.

IF THE HAIR FALLS OUT.—The *Medical Times* says that vegetables and cereals are hair tonics. If the hair is falling, the subject should be put upon a diet of fruits, vegetables and cereals. Milk should be avoided; as also meat and tea and coffee.

FLOATING KIDNEY.—After referring to the frequent recurrence of floating kidney after operation, Friederich says this cannot take place if the operation

is carried out so that the split capsule of the kidney is sutured to the skin through the usual lumbar incision, and the wound lightly dressed so that it heals by granulation. If the granulations of the skin reach to those upon the kidney a firm union is formed which will retain the kidney in place.—*Arch. f. Gyn.*, Bd. 73, 368.

Theodore J. Gramm, M.D.

VAGINAL HYSTERECTOMY AND UTERINE CARCINOMA.—Schauta has carefully examined the lymphatic glands in 60 cases dying from uterine carcinoma, with reference to the possibility of removing them by vaginal hysterectomy, and has found that when the uterine carcinoma has involved the glands which are accessible it is probably that the glands higher up, that is about the aorta and the peritoneum, are also diseased. Large, hard infiltrated glands are often not carcinomatous, while, on the other hand, small, and in fact the smallest, glands may be cancerous. Carcinoma is not only found in the glands, but may also exist in the connective tissue or lymph spaces or in veins between the glands. These facts show that a complete radical removal of the carcinoma with all cancerous glands, when the latter are affected, is rarely possible.—*Monatsschr. f. Geb. u. Gyn.*, xix., 500.

Theodore J. Gramm, M.D.

PHYSOSTIGMIN IN POST-OPERATIVE INTESTINAL PARALYSIS.—We are probably on the eve of an interesting discussion of this subject. A number of articles have already appeared recording clinical experiences which seem to indicate that eserine salicylate administered hypodermically is a remedy of the greatest value in threatened or existing intestinal paralysis, following in some instances upon abdominal section. Clinically, the remedy has apparently been proven to be most efficacious in the condition named, and a study of its physiological action undoubtedly indicates that these are the lines along which it might advantageously be employed. But entirely unmindful of these facts, and riding rough-shod straight across this cautiously nurtured and slowly growing Calabar bean-patch (for the action of eserine upon the intestinal tract was long known before any use was made of its effect there), there has appeared in the arena a contestant, upon the pennon of whose lance is written the legend, "Statistics." Now some one in a moment of exasperation has said that there are lies, — lies, and statistics, a thought which in calmer mood might have been transformed into the less profanely inclined suggestion that statistics must be handled with circumspection, else deductions drawn from them may lead astray. But Parkow, at the University of Jena, has collected some statistics from which he concludes that in physostigmin we have not been furnished with a weapon for combating this complication. The subject being new, all views concerning it are of interest. He bases the conclusion just cited upon an examination of a series of 210 cases, including abdominal and vaginal sections and some cases of Alexander-Adams operation. He then quotes Prof. Kionka, according to whom the action of eserine in the doses employed is expended in from three to four hours. In the first series, in which the treatment ordinarily used after operation was carried out without eserine, he found that flatus was passed within four hours in 2 abdominal section cases and in 2 vaginal section cases, but this did not occur in those patients upon whom the Alexander-Adams operation was performed. The restoration of the function of the bowels, as shown by the passage of

flatus, occurred in from twelve to thirty-six hours. In a second series of 94 cases, in which eserín was administered immediately after the operation, he found that flatus was passed before four hours in 1 abdominal section case, in 1 vaginal section case, but none of the Alexander-Adams cases were so fortunate. We may all indulge in speculation concerning these remarkable observations, but at present it will suffice to point out certain curious inferences which these statistics may be assumed to suggest: Abdominal section cases having adhesions did as well as those having no adhesions, which is contrary to experience. The Alexander-Adams cases passed flatus as early as some of the abdominal and vaginal section cases, a curious observation which the author acknowledges may be due to nervous causes. The duration of the operation and of the narcosis did not materially affect the time of the discharge of flatus, and presumably the restoration of the bowel function. This is contrary to physiological experiments. After doses of eserín amounting to 0.001 gms., 2 cases passed flatus before the end of four hours, whereas, if the dose was increased to 0.00125 gms., this result was not obtained in any of the cases receiving this amount. In order to meet the objections which might be advanced, that the sulphate in an old solution had been used in the former cases, he had a fresh solution of the salicylate prepared, and now its use was followed by no result whatever,—and that is why some people swear when they read statistics.—*Centralbl. f. Gyn.*, 937, 1904.

Theodore J. Gramm, M.D.

THE RELATION OF THE APPENDIX TO PELVIC DISEASES.—Peterson (Ann Arbor) has examined this question upon the basis of his experience and the microscopic examination of the specimens in 200 cases in which the appendix was removed during an abdominal operation for other diseases, mainly pelvic in origin. On their admission to the hospital the cases had been regarded as specially belonging to the gynæcological, instead of the surgical, department, to which recognized cases of appendicitis would have been sent. Some of the conclusions reached, after an extensive examination respecting many of the features exhibited in the 200 cases, are as follows: Only a little over 50 per cent. of appendices removed during the course of operations for pelvic lesions will be found microscopically to be normal. The remainder will show forms of acute and chronic inflammation or the result of former inflammation. Menstrual pain may be due to, or enhanced by, the presence of an inflamed appendix. The congestion incident to menstruation increases the inflammation and gives rise to attacks of appendiceal colic. It is exceedingly difficult to differentiate between pain due to pelvic lesions and pain due to chronic appendicitis. In the present series of cases a much larger proportion of patients whose appendices were abnormal gave histories of having, or having had, this pain of doubtful origin. The appendix is adherent twice as frequently in those cases where microscopic examination shows past or present disease. A certain proportion of adherent appendices are, however, perfectly normal microscopically. Mere shape of the appendix cannot serve as an index of its normality or disease. Appendices may be club-shaped, constricted or bent upon themselves and yet be perfectly normal microscopically. The appendix is the seat of fecal concretions in at least 8 per cent. of all cases. Their existence does not denote that the appendix is diseased. Nearly 50 per cent. of patients with chronic disease of the appendages show accompanying dis-

case of the appendix. This inflammation may be the result of the direct contact of the appendix with diseased adnexa, or infection may travel from the latter to the appendix through the lymphatics connecting the two. In chronic disease of the appendages adhesions of the accompanying appendices are present in nearly 50 per cent. of the cases, where microscopic examination shows the latter to be diseased. In a certain proportion of cases, however, although the appendix may be adherent, it is perfectly normal. In chronic disease of the appendages the appendix, which is club-shaped, constricted or contains fecal concretions, is not necessarily diseased. In 50 per cent. of patients with uterine fibromata there is accompanying disease of the appendix. In 70.9 per cent. of patients with ovarian cystomata the accompanying appendices are diseased. The appendix is not infrequently adherent to an ovarian cyst and may even infect the latter. The ordinary median abdominal incision in the class of cases under consideration amply suffices for the removal of the appendix. Such removal should neither increase the mortality nor prolong the convalescence. Since it is impossible for the surgeon, by gross appearances alone, to determine which appendix is diseased, and since nearly 50 per cent. of appendices, where the abdomen is opened for other purposes, are found diseased, it is the surgeon's duty in the absence of contraindications to remove the appendix in every such case. Otherwise he will leave behind diseased appendices, which may prove a subsequent source of suffering to the patient.—*Amer. Jr. Obs.*, vol. 1, 1.

Theodore J. Gramm, M.D.

PUERPERAL INFECTION.—Kneise (Halle) reports a rather unusual case of infection, and discusses the forms of puerperal infection. His patient had been normally delivered of her seventh child, in charge of a midwife who had examined the patient quite frequently during the course of her labor. The patient had progressed normally during three days and, as had been her custom, she got up on the fourth day. In the evening she was taken with fever, which in the succeeding days exhibited the usual elevation and variations characteristic of infection, and the patient died on the thirteenth day. A careful post-mortem examination of the important organs showed that the infection had failed to localize in any of the places usually affected. Thus there was no peritonitis, parametritis or metastases. At the placental site the decidua was found to be in a condition characteristic of the puerperal state, while in a thin zone of the subjacent muscle the nuclei had partly vanished, but below this no changes were present. There existed no evidences of inflammation nor of a reaction on the part of the healthy tissue as by the formation of a granulation tissue wall. In other portions of the endometrium even less distinct changes were noted. In the liver, spleen, kidneys and heart the tissue changes were such as were readily referable to the high temperature. When, however, the microscopic sections from the several organs were stained for bacteria, a surprising number of streptococci were everywhere present in the tissues. The secretion from the endometrium, tested by culture methods, also exhibited a pure culture of streptococci; and the same was true of the blood removed from the patient's arm during life.

According to the conditions just mentioned and the rapid course of the disease, we must assume that the germs which gained access to the genital tract must have possessed unusual virulence, for they were able with exceptional rapidity to overcome the obstacles which the living tissues and fluids oppose

to them, without any local reaction having developed, and they penetrated the uterine walls and proliferated and remained only in the blood. This rapid penetration and free circulation of streptococci in the blood-current is of importance for the comprehension of the several processes; this is also the differentiating point which distinguishes this form of blood sepsis from pyæmia.

An examination of the records of the Pathological Institute at Halle disclosed ninety-six post-mortem examinations in cases of puerperal fever, and among these only two were found of pure bacterial infection like the one above reported.—*Arch. f. Gyn.*, Bd. 73, 330.

Theodore J. Gramm, M.D.

SYPHILOMA OF THE CILIARY BODY.—The author stated that he believed these cases not to be as hopeless as generally supposed and quoted a case in which the diagnosis of iritis serosa was made and the treatment instituted accordingly. At a later period a history of syphilis at a remote period was obtained and the patient was placed on inunctions. A typical feature in this, as in other cases, was the swelling of the upper part of the ciliary region, extending upward and to the temporal region. In the early stage it pursued a course similar to iritis, and the swelling was about 3 mm. to 4 mm. high and 6 mm. to 8 mm. long, and extended around the corneal margin. The tension was alternately high and low. There was not very great pain. Continuation of the constitutional treatment brought about an abatement of the symptoms. While apparently hopeless, he stated that sympathetic ophthalmia was not to be feared in these cases. Persistence in treatment was indicated. He also gives the record of another case of gumma of the iris having similar clinical history and features. He employed potassium iodide in very large doses and the gumma disappeared, leaving behind pigmentation at the side of the lesion. His conclusions were that gumma of the ciliary body or other ocular structures was not necessarily hopeless in prognosis, and that the best treatment was the administration of large doses of potassium iodide. H. Knapp, M.D., New York.—*Annals Ophthalmol.*

William Spencer, M.D.

THE TOXIC AMBLYOPIAS, WITH SPECIAL REFERENCE TO THOSE PRODUCED BY TOBACCO AND COFFEE.—The references to coffee amblyopia are but few and brief in ophthalmological literature. Visual disturbances are not uncommon in persons who drink coffee to excess, and the trouble is corrected in some by abandoning use of coffee, while in others active treatment is required to restore function. There is concentric contraction of the visual fields for all colors, usually with, but sometimes without, marked impairment of central vision, and this is the most conspicuous manifestation. Persistent central scotomas are not observed; asthenopic symptoms and scintillating scotomas are not uncommon, aside from slight paleness of the temporal half of the disc in two cases; there were no fundus changes noted by ophthalmoscopic examination in the cases under observation. Casey Wood's theory, that many cases of the toxic amblyopias are due to the production of ptomaine poisoning by the particular toxic agent taken into the system, is thought to be a reasonable explanation of the occasion of coffee amblyopia. The author reports several cases. One case was observed through two relapses. Another marked case seemed to be produced by the combined effect of tobacco and coffee, but did

not improve until the use of coffee was abandoned. Permanent atrophic changes would probably result in long continued cases. In recent cases the prognosis is good. Treatment is the same as for other toxic amblyopias. Elimination is essential. Strychnia brings about early improvement of central vision and widening of the visual fields. Dr. A. E. Bulson, Jr.—*Annals Ophthalmol.*

William Spencer, M.D.

ACUTE OTITIS IN CHILDREN—A STUDY OF FIFTY-ONE OPERATIVE CASES.—Kerley presents a carefully prepared tabulated study of a series of cases of otitis in children, showing the frequency with which this affection occurs as a complication of the acute infectious diseases and the serious outcome which may result if proper treatment is not instituted early. In corroboration of this fact, mastoid disease was observed in about 8 per cent., while in 6 per cent. of the cases there was thrombosis of the jugular bulb. The micro-organisms found in the majority of the series were streptococci and staphylococci; the pneumococcus was also isolated.

A large number of cases were secondary to acute catarrhal processes in the upper respiratory tract. One of the most interesting points brought out is the fact that over half the cases showed absence of pain and local symptoms. As the temperature may be high, the disease is therefore frequently mistaken for some other acute disease, notably pneumonia. Early evacuation of the pus by paracausis of the membrana tympani is urged.—*Archives of Pediatrics*, October, 1904.

C. Sigmund Raue, M.D.

THE USE OF PURE NITRIC ACID IN THE TREATMENT OF DISEASES OF THE EYE.—This agent is one of the most powerful escharotics in the mineral acid group, but as it coagulates the albumin of the tissues without redissolving it, in this way safeguards its own excessive action.

Its action can be controlled to a nicety. It is easy of application, and in the great majority of cases its action is just as effectual as is the actual cautery, over which it possesses many advantages, both to the surgeon and to the patient.

The mode of application is as follows: The eye having been prepared, cocaineized and held open, a pine stick whittled down to a blunt, not a sharp, point is dipped into the pure acid and held till all the moisture has disappeared from the stick, when the edges and bottom of the ulcer are touched. It prevents the further invasion of the tissues by micro-organisms by forming a zone of coagulated tissue around the ulcer, thus closing the lymph spaces. Its use is indicated in all infected ulcers of the cornea and conjunctiva. In fact, it may be used in any case where a cauterant is indicated.

It possesses advantages over both carbolic acid and iodine. It is very serviceable in the obliteration of chronic vascular conditions of the cornea, and in the after-treatment of pterygium operations.

The author has been using it almost exclusively, where a cauterant is indicated, for the past twenty years, very rarely resorting to the use of the actual cautery, and with such good results that he does not hesitate to recommend its use. Dr. J. W. Bullard.—*Annals Ophthalmol.*

William Spencer, M.D.

MONTHLY RETROSPECT

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS.

CONDUCTED BY O. S. HAINES, M.D.,

with the collaboration in German literature of Oscar Boericke, M.D.,
and in French literature of Charles Platt, M.D.

DIACETIC ACID IN DIABETES MELLITUS.—As the result of his recent investigations regarding the reliability of the ferric chloride test for diacetic acid, Dr. Joseph C. Guernsey offers us the following conclusions:

1. In a large majority of cases of diabetes mellitus diacetic acid does not appear.
2. There may be grave symptoms (even coma) without diacetic acid.
3. There may be diacetic acid without coexisting grave symptoms, although
4. Death seems to be the finale of all cases where diacetic acid is persistent.
5. Diacetic acid may appear, disappear and reappear during the course of a case of diabetes.
6. Sometimes the marked increase or marked decrease in the sugar, or its complete disappearance, is cotemporary with the appearance of diacetic acid.
7. Diacetic acid is present nearly always in diabetes of young persons.
8. Diacetic acid appears in urine containing acetone.

MY EXPERIENCES WITH HOMŒOPATHY.—A rather remarkable communication appears in *Recorder* for October from the pen of E. G. Jones, M.D., a graduate of Dartmouth College, 1871. This writer admits that he is not a homœopathic practitioner, but that he feels *kindly* towards the homœopathic school for the following reasons: When quite a child, Dr. Jones was given up to die by his allopathic physician. He was restored to health and cured of a severe inflammation of the bowels by a homœopath. In the year 1860, Dr. Jones was stricken with the malignant type of diphtheria then epidemic in New England. Almost every case died under allopathic treatment. Fortunately, for the author, a homœopathic physician was called and he was saved. In the "80's" he was again cured by *nux vomica*, 6x dilution, of a catarrh of the stomach and bowels. In addition to these personal obligations to the law of similars, this doctor has frequently saved life by his use of the simple, direct therapeutics of our school. To-day he feels kindly towards us, and expresses himself as pleased that the homœopathic school has grown into one of the strongest schools of medicine in the world. We in turn are glad that Dr. Jones has lived so long that he has outgrown the prejudices of immaturity, and we are glad that he has grown so big that he can admit the truth of our system of therapeutics, even although he is not a member of the homœopathic school. This spirit of kindliness towards one's fellows, even of a different faith, and this readiness to give praise where praise is due, are the unmistakable signs of greatness. They do not exist in little minds. The reason that

the homœopathic school has existed so long as a sectarian body is because the ancient school of therapeutics has never grown "big" enough to prevent it.

ADRENALIN IN DIABETES.—Since writing the excerpt regarding this remedy, we have had the opportunity of trying it. Two weeks' use of adrenalin, 2x, in two cases of diabetes resulted in no diminution in the amount of sugar present. On the contrary, the amount of sugar was greater than it had been. This simply throws some doubt upon the statement, previously made, that after a week's use of the remedy the sugar lessens in amount.

CEREVISINE IN BOILS.—In two cases of recurring boils this preparation has acted so promptly and so well, that we feel that its efficacy should be thus substantiated.

MERCURIUS IOD. IN GOITRE.—Mercurius iod. is strongly recommended by Dr. Jos. M. Diller for goitre. He uses the 1x trituration, in half-grain doses, together with external applications of an alcoholic solution of iodine, 10 drops to the ounce. The author prescribes the merc. every morning and every evening until improvement begins, and then only once a day or at still greater intervals.—*American Physician.*

SEX AT WILL.—G. W. Bowen, M.D., has communicated to *The Brief* his belief that the sex of the child depends upon perfectly natural laws, and that to a very large extent this matter is under the control of the parents. His rule is a very simple one, as he states it. If pregnancy occurs in the morning, the result will be a male offspring; if it occurs at night a female child will be the result. The moral is obvious. Dr. Bowen explains all this. He also makes the rather surprising statement that eight out of ten of the first born children are born either on Thursday or on Sunday.

POSOLOGY FROM A HOMŒOPATHIC STANDPOINT.—Dr. William Boericke, in *Progress*, writes very sensibly regarding the proper dosage of homœopathic medicaments; contending for, what he terms, the *sub-physiological* dose on the ground of its rationality and logical necessity in homœopathic practice. At the last meeting of the Institute an effort was made to give official endorsement to no potencies over and above recognized divisibility of matter. Such a precise line of demarcation, in the present state of our knowledge, is impracticable according to the author's views, and he thinks that the effort was very properly squelched. While this sub-physiological dose, looked at from the point of view of the clinical experience of our school, is a wonderfully elastic term, the large majority of our practitioners are practically a unit in their belief that for acute diseases the lower attenuations are suitable; while the higher dilutions should be left to the treatment of those exceptional or marvelous cases which occasionally present themselves.

PSORIASIS CONGENITALIUM.—Dr. Joseph B. Kinley, in *Progress*, considers arsenicum the remedy suitable for the majority of such cases, and believes that treatment of the parents will often prevent its occurrence in the child. He mentions the case, also, of a boy aged 9 years affected with psoriasis gyrata of the congenital type, in whom the higher potencies of arsenicum were curative.

RECRUDESCENT TYPHOID.—Dr. W. B. Hinsdale, *The University Homœopathic Observer*, in presenting a well-marked case of typhoid fever in which,

after the normal line had been reached and followed for some time, there occurred a recurrent fever, mentions the following in explaining its causation :

1. The patient may suffer from what is called a new infection ; that is, some of the susceptible tissues, the intestinal glands, for instance, that were not infected at first, become so secondarily, and the patient enters, before recovery, upon a second attack of typhoid fever. 2. Some poison or toxin is, as a result of the primary infection, stored up or held back in the tissues that discharges itself by a kind of explosion after the usual pyrexia has subsided and produces a secondary general febrile toxæmia. 3. We often hear it charged that the recurrence is due to errors in diet, that solid or semi-solid foods are substituted too soon for the liquids upon which the patients have been fed while passing through the course of the disease. All clinicians know that typhoid fever is not necessarily an enteric fever. We know that the specific germ has the power of activity in many parts of the body. The blood-current may distribute the determining cause to several parts, even the brain, and profound systemic disturbances follow with a comparatively normal digestive tract. Usually the germ, being fluid or food-borne, takes root in the intestinal glands and produces a real enteric ulceration, the so-called typical lesion of the fever ; but from here it may pass to other parts and occasion febrile phenomena separate from and possibly after the enteric focus has ceased to be the principal centre of irritation.

BRIGHT'S DISEASE AND CHLORIDES.—The prognosis of nephritis is grave when the ingestion of chlorides is not followed by an increase in the chlorides of the urine, this according to some because of the failure of the kidneys to excrete the excess and according to others because of an aggravation of the kidney lesion by the salt itself. Widal concludes that salt is the most dangerous of all aliments in Bright's disease. True, salt has antitoxic properties, but in a disease such as this the antitoxic properties are of minor importance as compared with the "mechanical accidents" due to the œdema, etc., these being favored by the presence of the excess of salt.

In another class of diseases, the danger of œdema being absent, the dechlorination may act beneficially by permitting through substitution a more efficient action of other salines—*e.g.*, the bromides, the iodides, etc.

As to the diet it would be difficult, even if it were wise, to give to the patient a diet actually free of all chlorides. What is required is rather a diet containing chlorides in small but sufficient amount. Of the 14 grammes eliminated from the body daily by various channels possibly 2.5 grammes comes from bread and 10 grammes from the salt added directly as condiment to other foods. A milk diet provides about 5 grammes per day but, by proper adjustment, a diet of meat, potatoes, rice, sugar and fresh butter may be obtained, supplying from 1 to 3 grammes of the salt, and this may be advantageously alternated with the milk diet. The use of such diets in practice would seem to indicate that in Bright's disease, in cardiac disease, in alcoholic cirrhosis, etc., a salty diet does harm, a dechlorinized diet does not cure and, if too deficient in salt, may do harm, while temporarily, in crises, a dechlorinized diet is of great benefit.—*L'Art Médicale*.

In the retention of chlorides these seem to be stored in the cells of the body—and not in the blood. So long as the body weight remains low, or decreases, there can be no question of salt retention. When, however, the weight in-

crease we may suspect that elimination is inferior to ingestion, and we confront the possibility of anasarca and the necessity for the dechlorinated diet. Careful account then of the patient's weight will aid materially in the treatment and will spare the patient the rigor of the dechlorinated diet unnecessarily.

SUBCUTANEOUS INJECTION OF SALINE SOLUTIONS.—In another note we have mentioned in passing the antitoxic properties of sodium chloride taken internally. *La Semaine Médicale* has an article by Vincent calling attention to the harmful effect of salines *subcutaneously* in microbial disease. Typhoid infection, for instance, was found to be favored by salt hypodermatically, "tetanic explosions" were produced in tetanus, etc. This results, it is explained, by the local alteration in tissue permitting microbial multiplication and by the negative chemotaxis produced by the action of the salt on the leucocytes.

ICTERUS AND DIGITALIS.—Dr. Jousset *Père* acting on the suggestion of Dr. Bouchard, that the most important symptom of chronic icterus is the renal insufficiency, has used digitalis whenever the condition has threatened. In some cases the 6th dilution gave good results—in others the tincture was required. Dr. Simon approves the digitalis and uses also cheledonium and lachesis and, in grave cases, phosphorus. Bilirubin is regarded as the chief toxin, more poisonous than the bile acids, and acting chiefly on the heart and heart centres. It is by bilirubin that the heart is slowed in ordinary jaundice and the troublesome pruritus is of the same origin. Why, then, if this be as powerful a poison, do we not get symptoms of grave intoxication? Why are the symptoms limited to these two, the slowing of the pulse and the pruritus? Because, in ordinary cases the bilirubin is rapidly excreted by the kidneys. It is when the kidney action becomes deficient that the grave symptoms appear, myocarditis, etc.—*Revue Hom. Française*.

TREATMENT OF NEPHRITIS.—Dr. Cartier obtains satisfactory results only with phosphorus. Dr. Simon prefers apis and lachesis and, especially, in 95 out of 100 cases, Cantharis. (Lancereaux, old school, cures cases with 10-drop doses of the tincture.) Apis is indicated especially in the nephritis of scarlet fever and when cedema is well developed. Dr. Marc Jousset uses in acute nephritis, belladonna, cantharis and apis, the first named in 4- or 5-drop doses of the tincture. Terebinth often gives good results.—*Revue Hom. Française*.

ELECTROLIZATION OF HOMŒOPATHIC MEDICINES.—Dr. Jeaumaire, of Zurich, reports that the curative power of the homœopathic dilutions is enormously increased by passing through the solution a current of electricity. In one case, for instance, belladonna, apparently well indicated, failed in various dilutions, but having been electrized in the 8th dilution a belladonna aggravation was obtained, and, on lessening the dose, a cure.—*Revue Hom. Française*.

HOMŒOPATHY IN THE OLD SCHOOL PRACTICE IN FRANCE.—Prof. Lancereaux cures nephritis with cantharis; Prof. Dujardin-Beaumetz, diphtheria with merc. cyan.; Prof. Charcot, Menière's disease with quin. sulph.; Prof. Lépine, diarrhœa with merc. cor.; Prof. Rigal, diabetes with uran. nit.; the Academy of Medicine recommends *æsculus hip.* in hæmorrhoids, etc.

ADRENALIN IN ARTERIO-SCLEROSIS.—Dr. Jousset uses adrenalin hydrochloride, the one one-millioneth solution “0.25 centigramme in 200 c.c. of water.” One teaspoonful, morning and evening, in arterio-sclerosis, in aortitis, in anæmia, and, occasionally, in diabetes, all according to the homœopathic indications.—*Revue Hom. Française*.

Think of CONIUM in neurasthenia.

PLANTAGO MAJOR.—A few drops of the warm extract instilled in the ear will relieve the pain of otalgia.—*Revista Homœopatica Catalana*.

DIGITALIS AND THEOBROMINE AS SODIUM CHLORIDE ELIMINANTS.—The diuresis produced by digitalis in cardiac cases and sometimes in nephritic cases, and that produced by theobromine in nephritic cases, is accompanied by an increase in the elimination of sodium chloride.—*Société Médicale des Hopiteaux*.

ACUTE INFLAMMATION OF THE FAUCES, TONSILS AND LARYNX.—Dr. Edward M. Madden thinks that *all* acute colds are caught by infection. He admits that exposure to dampness and chill predisposes to their development, yet if there be no infection, no catarrh nor coryza will follow, as has been proven by the experiences of all Arctic voyagers. The preliminary symptoms of general chilliness, shivering and fever so closely resemble the effects of aconite that this remedy is generally recognized as the first medicine to be given; and, if begun early enough, and before local symptoms have developed, the whole morbid process may be nipped in the bud. Particularly is this the case if, at the same time, we take care to restore the normal circulation in the skin, by a hot bath or a hot-air bath. If we have not been fortunate enough to catch the case in time to abort its further progress, the author recommends, for the congested, raw condition of the fauces, uvula and posterior pharynx, the second decimal trituration of the *merc. iod. cum kali. jod.* It will be necessary to explain how this particular remedy is made, because it differs somewhat from the drug usually recognized by this name. Dr. Madden mixes 15 grains of the iodide of potassium with 1 grain of the protiodide of mercury. This having been dissolved in water is called the matrix tincture. Enough sugar of milk is then added to reduce it to the 2x, and the whole triturated. The dose is 1 grain of this 2x, repeated at frequent intervals. This prescription has seemed to have the power to cure severe colds, if administered in the stage as above described. However, where we have the bright red, swollen state of the soft palate, uvula and arches, with high fever, and marked dysphagia, the latter being worse when a *small* bolus is swallowed, we can generally depend upon belladonna, providing there is no ulceration. When the follicles of the tonsils have become involved, and “ulcers” appear upon the surfaces of these glands, the author seems inclined to alternate the belladonna with biniodide of mercury. And in addition he orders a gargle of chlorate of potash, 1 drachm to the pint of water. Without denying that such a plan of treatment is often followed by a prompt subsidence of the follicular inflammation, we feel inclined to believe that there is a better way than this. It will seldom be necessary to prescribe more than one remedy for such cases, if the latter be selected with a little more care; and, it is seldom necessary to use a gargle of potassium chlorate or permanganate. We shall even go so far as to think that the permanganate of potassium

gargle is a positive disadvantage to many of the throats for which it is so universally ordered. In those cases in which the parenchyma of the tonsils is involved more deeply, with swollen, tender glands about the neck, with some ulceration and much angina, the author thinks highly of phytolacca.—*American Physician*.

REMEDIES THAT WILL CURE "PINK-SWEAT."—In one of the recent numbers of *Homoeopathic Recorder*, a correspondent asked for suggestions regarding the remedies suitable for a patient in whom the sweat was *pink* in color. This being rather an unusual symptom, we are interested to record the replies to this inquiry. Two answers contained suggestions for lachesis. One related a case of that nature in which the man, aged 28 years, had a pink sweat in folds and creases which stained clothing. The stains were almost permanent—resisting washing. Lycopodium, 30, after the failure of lower preparations, completely cured this case. It was also claimed that gastein water has caused and cured sweating which stained the clothing a red color. It will be very practical to add such suggestions to our repertories, as we shall not fully appreciate them, until such a case comes before us. Then we shall be glad to have them by us.

ALSTONIA CONSTRICTA AND ITS USES IN THE DEBILITY AND PROSTRATION OF ACUTE DISEASES.—We can hardly pass by the statements of Dr. T. J. Merryman which were published in *Century and Recorder*, regarding the value of alstonia or bitter bark (the native quinine) of New South Wales. This observer states that after an acute illness has left the patient in a condition of great exhaustion with much real debility, the remedy may be depended upon to tone up and strengthen. He recommends the first decimal dilution in water. But he goes farther than this. He relates a case of pneumonia to which he was summoned with the information that the case was "dying." Her appearance justified this description, because the author continues: "I found her in a collapsed state, wavering between life and death." He prescribed alstonia, with excellent effect. While it is doubtful, from the description, whether we had in this instance some serious cardiac weakness or merely the phenomena of a distinct crisis, it is evident that alstonia had the power to act as a cardiac and respiratory stimulant in small doses; and this property may be remembered with advantage.

SKIN EFFECTS OF HABITUAL COFFEE INDULGENCE.—Dr. Perfetti (Paris, 1902), in a dissertation entitled, "Caffeism in the Dermatoses," refers particularly to pruritus, which may display itself in various forms.

At times the patient may define it as an exquisite titillating sensation, constantly shifting about, and compared to the most delicate contact of a feather; again, as a creeping, crawling or formication; finally, as a burning, pricking or darting.

In intensity it may vary from a slight, superficial degree, disappearing on least pressure or friction, to a severe, deeply penetrating boring, provoking frantic scratching.

The itching, occasionally, is persistent; more frequently, however, it is characterized by remissions and exacerbations; the latter especially towards evening. The morning itching, though at times severe, rarely attains that of the evening.

The pruritus may disappear during the night.

Certain conditions may greatly aggravate the almost latent pruritus of day-time, among which we may mention: Cold or warm air, draughts, barometric depression, sweating, mental application, physical over-exertion, emotional causes, and pre-eminently drinking hot coffee.

The locations especially affected are the face, neck, upper chest, anterior and outer surfaces of forearms, inner and outer surfaces of legs, back, hips, ankles, genito-anal regions (in males mons and sacrum; in females vulva and vagina). Rarely, if ever, are the buttocks, abdomen, shoulders affected.

The coffee pruritus may either coexist with an idiopathic pruritus or greatly aggravate the latter.

Despite its intensity, the pruritus may exist without any objective alterations in the vitality and nutrition of the skin, although scratching may excite congestion, redness and tension. Occasionally thick papules or small excoriations, covered with black, bloody crusts, may appear.

The skin affections may be of the most diverse type, and are greatly modified by the general bodily status and individual susceptibility. Neuro-dermatoses, invisible and diffuse; prurigo, lichen, eczema may develop, according to the individual disposition.

Though Hahnemann italicized the hyperæsthesia produced by coffee, he practically overlooked the valuable array of skin effects.

Lately, Dr. Jousset recommends *coffea cruda* in urticaria, pruritus ani et vulvæ, especially when periods of exacerbation and remission are pronounced, and the pruritus is most apt to assert itself in the evening, diminishing in intensity during the night. He invariably interdicts the use of the beverage in all cases of pruritus.—*Allgemeine Hom. Zeitung*, January, 1904.

NOTE.—A highly neurotic female, æt 35, victimized by an infinite host of symptoms, amongst which pruritus vulvæ et mammæ played a very prominent rôle, received *coffea cruda*, 6th dil., in nightly doses, for one week, with the hope of relieving an obstinate attack of insomnia. The patient querulously reported that her "sleep-medicine" was without the least effect, though she felt grateful for the marked relief of the pruritus, which had been treated more or less effectually with various local measures.

PARENCHYMATOUS KERATITIS.—Ophthalmologist, Prof. v. Hippel (Heidelberg), in an article bearing the above caption, tersely summarizes the treatment of this ocular affection as follows: "Since this affection is most apt to occur in the debilitated, weakened constitutions, the diet must necessarily be nourishing and easily assimilable, to which occasionally may be added tonic and stimulant remedies. Guard the eye against light and winds. In those cases, where the infiltration is so dense that the iris cannot be readily seen, protect the eye and resort to atropine instillations. In protracted, lingering cases ungt. hydrogyri citrosi has accomplished good results.

"Hot fomentations may hasten the resorption from the newly formed vessels, and also guard against lymphoid infiltration.

"Remedially much can be hoped for from well selected homœopathic remedies; in fact, superior, speedier results reward our selections than those of the old school."

Apis.—Great infiltration of the cornea, with moderate redness and photophobia. History of hereditary syphilis with exostoses, joint swellings, high fever, somnolence, thirstlessness.

Arsenic.—Interstitial keratitis, cloudy cornea with, incipient vascular formation. Intense photophobia, lachrymation with burning pain in and about eye < after midnight.

Aurum mur (lower potencies).—Especially those cases with history of hereditary syphilis, or keratitis of scrofulous nature. The professor observes a rapid and permanent influence from the use of this remedy, especially in both vascular and non-vascular types of the disease. Subjective symptoms not specially significant; in fact, they may be absent, or only slight photophobia, sensitive condition of eyes, dull pain in and around eyes, which may be deeply seated in bones.

Baryta iod.—Interstitial keratitis of scrofulous patients, with attendant great, hard swelling of cervical glands, painful on pressure.

Cannabis.—Hereditary syphilis; intense clouding of cornea, with inflammation. Marked photophobia, with lachrymation.

Hepar sulph.—Keratitis of scrofulous origin. Cornea dark-red, very vascular, lids deeply injected, iris violently painful, profuse lachrymation, eyeballs very sensitive to contact. This remedy being very useful to clarify the cornea after the subsidence of inflammatory process.

Kali chlor.—Diffuse infiltration of cornea, with some pain and moderate photophobia and redness.

Merc. sol.—Syphilitic cases, either hereditary or acquired. Injection of lids, pain; iris frequently implicated; nocturnal aggravation; general mercury indications. The inflammation is more erethistic (active) than aurum.

Sepia.—Keratitis combined with uterine disturbances.

Sulphur.—Indicated in scrofulous, even if inflammation is in active stage; especially useful to favor resorption after the inflammation has been arrested by other remedies.

Concomitant articular affections are often effectively influenced by the remedies; for example, has notably knee involvement with severe pains; so, also, baryta iod., calcareas hepar, merc., sulphur.

Secale coruntum.—This remedy will often prove most reliable in sporadic, likewise Asiatic, cholera and choleraic disorders associated with vomiting, copious evacuations and intensely painful cramps in feet, toes, legs and thighs. The selection is still further focalized by the presence of cramp-like pressure in epigastrium, wilted, withered skin, retching, borborygmus, anxiety of mind.

Beer drinkers (kali bichr., aloes) suffering with gastro-enteric disorders, presenting the above range of symptoms, seem especially amenable to the curative effects of this remedy.—*Allgemeine Hom. Zeitung*, August, 1904.

NOTE.—Numerous trials of this remedy in gastro-enteric disorders, where cuprum ars. or mercurius corr. seemed apparently indicated, yet proved ineffectual, yielded satisfactorily to secale cor. (2x-3x) in the hands of the translator.

TABACUM.—James Searson, M.D., has found tabacum a very valuable remedy for a train of symptoms that are very similar to those produced by sea sickness. His first application of this remedy was in the case of an elderly gentleman, suffering from arterio-sclerosis. Intermittent and feeble action of the heart, great pallor, breathlessness, nausea with occasional vomiting, uncomfortable feeling in the epigastrium, headache and giddiness, associated with the hard, cord-like pulse. Tabacum, 6, produced an effect which the

author describes as "magical." In subsequent trials of this remedy success has been invariable. Dr. Searson gives tabacum to those cases in which *giddiness* is the leading feature. It is an extremely useful remedy in the intermittent heart of old people.—*Homœopathic World*.

ANACARDIUM ORIENTALE IN CERTAIN TYPES OF GASTRIC DISEASE.—From the series of cases recorded by Dr. Stauffer, of Munich, and translated in *Recorder*, it must appear plainly that anacardium has been of great service in numerous cases of a gastric nature. The prevailing characteristic of all these cases seems to have been a pain considerably relieved by eating food, and aggravated whenever the stomach is empty or when the mind is unduly exerted. This pain has been described in somewhat varying phraseology: Cramp-like, contracting or lancinating; but invariably relieved, at least for some hours, by the ingestion of food. This symptom alone would afford us an indication upon which the remedy could be selected for many cases of gastritis, gastric hyperacidity and perhaps gastric enlargement or dilatation.

It appears that the subjects of this anacardium condition have generally been those overworked either mentally, physically or both, so that peevishness, incapacity for work and hypochondriasis were accompaniments which might easily be explained. Hæmorrhoids and constipation accompanied in some instances. From the experiences of Dr. Stauffer it appears possible that the condition above described might be easily aggravated if too low a preparation of anacardium were chosen. The sixth decimal aggravated and afterwards cured. The third decimal aggravated likewise. In such instances the physician advised the 8x, 12x and 16x. In some cases the sixth decimal acted in a satisfactory manner, without aggravation. This peculiar pain, with the desire for food and relief from eating, brings to mind, besides anacardium, such polycrests as iodine, chelidonium or petroleum. With this group of remedies we have succeeded in curing many cases of gastric disease which had previously resisted much treatment of various kinds.

THE ACTION OF ADRENALIN IN ARTERIO-SCLEROSIS.—Adrenalin has, in the healthy man, a constant effect upon the arterial tension. The 16500000 of a gramme injected into a peripheral vein determines, almost immediately, a considerable elevation of pressure, lasting for three or four minutes, and followed by a period of hypotension below the initial one. Adrenalin constantly causes diminution of red globules and increase of leucocytes. It produces, therefore, anæmia. Glycæmia and glycosuria are also produced by adrenalin, and it has caused the classic lesions of chronic aortitis. According to the law of similars, adrenalin would be indicated in arterio-sclerosis and particularly in aortitis, in anæmia and in diabetes. Guided by this law, I have been using the hydrochloride of adrenalin for several years, in the sixth decimal dilution; of this 25 centigrammes are mixed in 200 grammes of water, and a teaspoonful given every morning and evening. In a case of extreme chlorosis this remedy was successful. In another case of hæmophilia it prevented the hæmorrhages, although the child still had ecchymoses. In a gouty man, aged 55, subject to frequent crises of angina pectoris, the remedy cured these attacks, after the iodide of sodium had failed. In two cases of chronic aortitis notable amelioration was obtained.—P. Jousset, M.D., in *Revue Homœop. Fran.*, translated in *Monthly Hom. Review*.

PROLAPSUS RECTI.—*Ferrum phos.*, 6, one of the best remedies for this disorder occurring in children.

Aloe, like *merc.*, if condition be attended with diarrhœa, dysentery and tenesmus.

Babingtonium, adapted to those cases where the prolapsus occurs after stool (morning aggravation), or violent muscular exertion, or efforts like sneezing.

Muriatic acid, if occurring during micturition.

Ignatia, for hysterical-nervous persons, markedly constipated; also crying children with blue, bloody anus and painful defecation.

Calcarea carb., valuable in chronic cases of children.

Scilla, chronic cases of adults aggravated by any motion.

Arnica, ʒiij. in 120.0 water, 4x t. i. d., teaspoonful doses, has been highly praised.—*Journal Bèlge Hom.*, March, 1904.

ANTIMONIUM SULPHURAT. ACRANTIACUM.—This remedy really deserves greater attention in cases of *chronic bronchial catarrhs* than has been heretofore accorded it by the profession. To attain the best results it must be given in the lower potencies (2-3 trit.) in cases of *dry* catarrh with scanty, difficult expectoration, or emphysema, upon the supposition of eliciting the primary action, which is that of a stimulant expectorant. Dose: 3-4x t. i. d., a powder 2 decigramm.

On the other hand, in intractable cases with mucorrhœa, the remedy is given for its resorptive virtues, and for this purpose the higher potencies (5x-6x) are specially recommended.—*Leipziger Pop. Zeitschrift*, August, 1904.

MALIGNANT DIPHTHERIA.—Dr. J. W. Pierce says that the following remedies should be remembered for diphtheria, when the horrible odor is the pronounced feature: *Baptisia*, carbolic acid, kreosote, lachesis and mercurius cyanatus.—*N. A. Journal*.

NON-OPERATIVE TREATMENT OF MASTOIDITIS.—Frederick H. Colburn, M.D., believes that in a considerable number of cases of mastoiditis, conservative treatment is a safe and advisable procedure. To be of avail, non-operative treatment must be instituted early, before necrotic changes have taken place within the mastoid or tympanum. This author evacuates the tympanum of the fluid within by a free semi-lunar incision; then applies cold by means of the Leiter's ear coil. The canal is thoroughly cleansed with sterile cotton and dioxide of hydrogen. Hot, sterile irrigations of water may be applied for ten minutes at a time, at intervals of from one to four hours. The writer also thinks that medicinal treatment should go hand-in-hand with these local measures.

In the early stages of the affection, perhaps the most frequently indicated remedy is belladonna. The flushed face, the throbbing pain in the ear, the throbbing frontal headache, the dilated pupils, the sensitiveness of the eyes to light, the high temperature and the sero-sanguinous discharge are all good indications for this remedy. *Ferrum phosphoricum* resembles belladonna, but has for its keynote that peculiar *hammering* which accompanies each pulsation with a distinct blow and frequently with a pain. *Capsicum* is highly recommended and comes in at a later stage than belladonna. Tenderness and pain in the mastoid, a thicker aural discharge, more yellowish in color, would distinguish this remedy. If the case progresses, *hepar*, *pulsatilla*, *mercurius*, *silica* and *kali muriaticum* are of especial value.—*Homœopathic Eye, Ear and Throat Journal*.

INDEX

TO THE

HAHNEMANNIAN MONTHLY.

VOLUME THIRTY-NINTH, 1904.

	PAGE		PAGE
Abdominal Cavity Ever be Flushed?		Address of Hon. James M. Beck, at	
Should the. Dewitt G. Wil-		the Fifty-Sixth Annual Com-	
cox, M.D.,	748	mencement of the Hahnemann	
Operations, The Alum Enema		Medical College, Academy of Mu-	
in the After-Treatment of, . .	239	sic, Philadelphia, May 21, 1904, .	441
Organ and its Importance as a		Adenoid Deafness, Difficulties and	
Diagnostic Symptom, The Be-		Insufficiency of the Stenosial The-	
havior of the Costal Arch in		ory of,	65
Diseases of the,	623	Adrenalin, Local Anæsthesia in Ex-	
Section, Drainage after, . . .	57	traction of Teeth with a Mix-	
Surgery, Anæsthesia in, . . .	463	ture of Cocaine and,	632
Abortion, The Treatment of, . .	710	in Cardiac Asthenia of Old Peo-	
Abscess of the Lung Following Acute		ple,	553
Pneumonia,	139	in Diabetes,	951
Absentmindedness,	400	in Arterio-Sclerosis,	955
Accidental Vaccination of Tongue		in Arterio-Sclerosis, Action of, .	959
and Pharynx—A Case. H. M.		in Gynæcology and Obstetrics, .	787
Eberhard, M.D.,	33	in Laryngeal Surgery, Cocaine	
Accommodation in Man, The Mech-		Mixed with,	553
anism of,	875	in the Treatment of Glycosuria.	798
Accouchement Force,	147	Advantages of Vaginal Drainage	
Acidum Nitricum in Mouth and		after Abdominal Section, The, .	628
Hoof Disease,	393	Affiliation,	611
Action of Antitoxic Serums in the		Agaricus Muscarius in Pruritus, .	153
Treatment of Infected Corneal		Muscarius in Twitching of Facial	
Ulcers, On the,	784	Muscles,	160
of Helmitol as a Disinfectant of		Alcohol Oculomotor Palsies, . .	469
the Urine,	304	Alimentary Canal to Pelvic Diseases,	
of Nicotine, The,	557	Relations of the,	706
Acute Appendicitis: Its Diagnosis		Alum Enema in the After-Treatment	
and Indications for Operation,		of Abdominal Operations, The, .	239
Diseases, Use of Alstonia Con-		Albuminuria, Postural,	553
stricta in Debility and Prostr-		as an Accompaniment of Dia-	
ation of,	956	betes,	137
Diarrheas of Infancy—Etiology		of Puberty, The,	790
and Pathology, The. S. W.		A Lecture on Means for the Prolon-	
Sappington, M.D.,	481	gation of Life,	148
Diarrheas of Infancy—Sympt-		Alcohol, Treatment of Reducible	
omatology, The. W. H. Bigler,		Hernias by Injection of,	780
M.D.,	490	Disease, The Relation of Sanitary	
Diarrheas of Infancy—Treat-		Science to the. A. W.	
ment, The. C. S. Raue, M.D.,		Atkinson, M.D.,	180
Diseases of Children, An Obser-		in the Air,	553
vation in the,	393	Allopathic Sources, Homœopathy	
Epitheliomatosis of the Breast, .	304	from. W. A. Hinckle, M.D., . .	421
Inflammation of the Fauces,		Alopecia Areata, One Cause of, .	782
Tonsils and Larynx,	955	Areata in Children. Frederick	
Lymphoid Leukæmia in a Boy		M. Dearborn, M.D.,	742
of Twelve Years,	779	Alstonia Constricta and Its Use in	
Nephritis as a Complication of		the Debility and Prostration of	
Eruptive Fevers. Wm. A.		Acute Diseases,	956
Geohagan, M.D.,	809	Amblyopias, Toxic, With Special	

	PAGE		PAGE
Reference to Those Produced by Tobacco and Coffee,	949	Appendix, Mistakes in Diagnosis Caused by Pains in the Region of the,	304
American Institute of Homeopathy, The,	629	and Its Neighbors, The, Sidney F. Wilcox, M.D.,	767
Institute Meeting, The,	455	Relation of, to Pelvic Diseases,	947
Ammonium Bromidum in Severe Types of Whooping-Cough,	319	Apis Mellifica,	156
Anacardium Orientale in the Vomiting of Pregnancy,	582	Aqueous Humor in Cases of Senile Cataract, Composition of,	232
Anæmia and Its Treatment,	315	Ailanthus, Observations on the Therapeutic Uses of the Tincture of,	158
Picric Acid, Progressive Idiopathic Pernicious,	480	Aranea Tela,	792
Anæsthesia, Local,	135	Are We to Have a United Medical Profession,	449
and Separation of the Pericranium, Without Hemorrhage, Trepanation Under Local,	546	Arch of the Aorta, With Special Reference to Recent Studies of This Subject, The Symptomatology of Thirty Cases of Dilatation of the,	633
in Abdominal Surgery,	463	Arnica Montana,	476
in Ophthalmology, The Choice of a General,	460	Arsenic Iodide in the Treatment of General Neurasthenia. W. F. Baker, A.M., M.D.,	321
Anæsthetic, Ethyl Chloride as a General,	945	Artemesia Abrotanum: Vertigo with Falling Forward,	714
Analysis of One Hundred and Fifty Cases of Death from Broncho-Pneumonia,	865	Arterio-Sclerosis, Dietetic Treatment of,	226
Anastomosis, A New Device and Method for Intestinal,	313	Sclerosis, The Iodides in,	789
Aneurysms of the Aorta, On Treatment of,	705	Sclerosis, Adrenalin in,	955
Angina Pectoris, Personal Experience in,	237	Sclerosis, Action of Adrenalin in,	959
Pectoris, Treatment of,	53	A Simple Method for Relieving Neuralgia,	158
Angioneurotic (Edema of the Larynx—Tracheotomy,	152	Association of Cataract with Uncinariasis, or Hook-Worm Diseases, The,	876
Angophora Lanceolata in the Treatment of Dysentery,	78	Asthénia of Old People, Adrenalin in Cardiac,	553
Another Method of Doing Tracheotomy,	545	Astigmatism and Central Chorioiditis in Myopia, Corneal,	551
Method of Sterilizing Catgut,	704	Atkinson, A. W., M.D. The Relation of Sanitary Science to the Alcohol Disease,	180
Antimonium Sulphurat. Aurantiacum,	960	Atropine in Incarcerated Hernia,	786
Tartaricum,	155	in Mechanical Obstruction of the Bowels,	788
Antitoxic Serums in the Treatment of Infected Corneal Ulcers, On the Action of the,	784	Retinæ, Retinal Extract for,	384
Antitoxin, Tetanus, Report of Two Cases Cured by,	945	Attractiveness of Mysticism, The,	636
Aorta, on Treatment of Aneurysms of the,	705	Auditory Troubles, A Case of Facial Paralysis with,	675
With Special Reference to Recent Studies of This Subject, The Symptomatology of 30 Cases of Dilatation of the Arch of the,	633	Aurum Metallicum,	797
Aphonia, Phytolacca in,	479	Muriaticum, Psoriasis Syphilitica and,	152
Aphthous Laryngitis, A Case of,	704	Patient, The Mental State of the,	716
Apocynum Cannabinum,	878	Baker, W. F., A.M., M.D. Arsenic Iodide in the Treatment of General Neurasthenia,	321
Appendicitis, The Cause of,	879	Bacillus Dysenteriae in Infants, A Clinical Study of Sixty-Two Cases of Intestinal Infection by the,	308
Left-Sided,	69	Bacterial Diseases, The Modern Theories of Immunity to,	616
Catarrhal,	80	Diseases, The Relation of Homœopathy to. J. Herbert Moore, M.D.,	721
Some Forms of Pseudo,	624	Origin, On the Treatment of Diseases of,	797
Intestinal Parasites in,	137	Baptisia in Spasmodic Stricture of the Esophagus,	395
Toxic Nephritis with,	781	Barlow's Disease,	779
Obstruction and Consequent Distention the Cause of,	471		
Its Diagnosis and Indications for Operation, Acute,	470		
More Frequent than of Yore, Is,	302		
Appendicular Abscess, Rare Case of,	143		

	PAGE		PAGE
Barlow's Disease with an Odd Symptom, A Case of,	704	Bromide of Sodium in Tinnitus Aurium,	220
Basedow's Disease, A Few Therapeutic Hints in,	787	Bromoform, Poisoning by,	80
Beck, James M., Hon., Address of, at Fifty-Sixth Annual Commencement of the Hahnemann Medical College, Academy of Music, Phila., May 21, 1904,	441	Bronchial Affections, Mercurius in Acute,	238
Beebe, H. E., M.D. The Golden Mean,	850	Bronchoscopy,	399
Behavior of the Costal Arch in Diseases of the Abdominal Organs and Its Importance as a Diagnostic Symptom, The,	623	Broncho-Pneumonia, An Analysis of One Hundred and Fifty Cases of Death from,	865
Benzoate of Lithium in the Treatment of Corneal Macule,	66	Brown, E. Wilton, M.D. Treatment of Acute Articular Rheumatism,	114
Benson, Frank C., Jr. Some Experiments in Radiotherapy,	729	Bulbar Conjunctiva, Clinical Characteristics of Syphilitic Chancre of the,	785
Berberis, A Study of,	559	Burns,	159
Betts, B. Frank, M.D. Rationale of the Naueheim Treatment of Heart Affections,	34	Cactus, Spigelia and Naja Tripudians, A Differential Diagnosis of the Homœopathic Cardiac Action of Digitalis, A. C. Cowperthwaite, M.D.,	592
Better not Laugh too Soon,	715	Cæsarian Section, Eclampsia and Vaginal,	230
Bigler, W. H., M.D. The Acute Diarrhoeas of Infancy—Symptomatology,	490	Section for Eclampsia, a Case of Vaginal,	56
Bigotry Midst the Shades of Harvard as Bad as That of Aristocratic Quakerdom,	691	Cajaput, Verifications of,	478
Bilateral Blindness Consecutive to Measles, Note on a Case of,	626	Calcareo Fluorica in Dental Caries,	155
Excision of the Superior and Middle Cervical Sympathetic Ganglia in Epilepsy,	308	Cancer, The Danger of Radio-Therapy in,	782
Birch Leaves, a Tea as a Solvent of Stone in the Kidneys,	629	And the X-Ray,	864
Bishop, Hudson D., M.D. Puerperal Eclampsia—Its Ætiology and Treatment,	596	Infections, Is,	133
Blackwood, O. S., M.D. The Management of Failing and Broken Cardiac Compensation,	583	of the Cervix, The Palliative Treatment of,	388
Blepharitis,	233	of the Uterus, The Method of Operation for,	55
Blindness, Radium and,	68	Can Catarrh be Cured by Internal Remedies Alone,	718
Blood Examinations, Diagnostic Value of,	140	Carcinoma, Ætiology of,	228
from the Vagina, Irregular Discharges of,	714	and Tuberculosis of the Uterus, Combination of,	224
Boils, Cerevisine in,	952	of the Bulbous Urethra, Primary, of the Uterus, Metastases in the Iliac Glands in,	542
Boric Acid, Observations on the Therapeutic Value of,	795	Uterine and Vaginal Hysterectomy,	946
Bowels, Atropine in Mechanical Obstruction of the,	788	Cardiac Action of Digitalis, Cactus, Spigelia, and Naja Tripudians, A Differential Diagnosis of the Homœopathic, A. C. Cowperthwaite, M.D.,	592
Brain, Surgery of Tumors of the,	458	Asthénia of Old People, Adrenalin in,	553
Breast, Acute Epitheliomatosis of the,	304	Compensation, The Management of Failing and Broken. A. L. Blackwood, M.D.,	583
Conium in Tumors of the,	720	Debility in Advancing Middle Life, The Prophylaxis and Treatment of,	389
Suppurating,	159	Failure, The Efficient Treatment of,	226
Briggs, J. Emmons, M.D. Surgery of the Gall-Bladder and Ducts,	664	Case of Acute Primary Osteo-Myelitis of the Sacrum, A,	632
Bright's Disease and Chlorides,	953	of Aphthous Laryngitis,	704
Bromides in Nervous Affections,	531	of Barlow's Disease with an Odd Symptom, A,	704
Bromidium in Severe Types of Whooping-Cough, Ammonium,	319	of Hæmorrhagic Sarcoma of the Thigh,	630
Bromium,	635	of Extrauterine Pregnancy with Living Child,	391
Broncho-Pneumonia Complicating Whooping-Cough, The Open-Air Treatment of,	473	of Monocular Blindness Through Hystero-Trauma, A,	143
Broken Loose,	772		

	PAGE		PAGE
Case of Primary Sarcoma of the Trachea, A. H. M. Gay, M.D., and W. I. Tomlinson, M.D., . . .	606	Children After the First Year, The Feeding and Care of, . . .	625
of Purulent Pericarditis Secondary to Pneumonia; Operation: Recovery, A.	229	Typhoid Fever in,	908
Of Vaginal Cæsarian Section for Eclampsia,	56	Childhood, Pneumonia and Pleurisy in, C. Sigmund Raue, M.D., . . .	842
Cataract, To Counteract the Formation of the,	714	Chloride and Hyperchlorhydria, Sodium,	555
Gray,	236	Chloride of Ammonia in Enlarged Prostate,	320
Composition of Aqueous Humor in Cases of Senile,	232	Chloride in Edema, Sodium,	555
with Uncinariasis, or Hook-Worm Disease, The Association of,	876	Chlorides and Bright's Disease,	953
Cataracta Senilis, Therapeutics of,	74	Chloroform or Ether as an Anæsthetic,	630
Catarrh be Cured by Internal Remedies Alone, Can,	718	Cholangitis, etc., Salicylic Acid in Cholelithiasis,	779
Catarrhal Appendicitis,	80	Cholelithiasis, Sodium Salicylate in,	556
Cold: Its Treatment,	477	Cholangitis, etc., Salicylic Acid in, and Its Treatment,	779
Enteritis in Women, Simulating Pelvic Disease,	142	Chorda Venerea,	135
Catgut, Iodized,	549	Chorea, A Case of,	554
Catheters, Sound, etc., A Lubricant for,	630	Ending Suddenly in Death, Simple,	789
Cause of Appendicitis, The,	879	Christian Science, Medical Aspects of, Caldwell Morrison, M.D., . . .	161
of Hæmorrhage in Uterine Fibroids, The,	709	Christine, Gordon M., M.D. Prophylaxis of the Eyes of the Newborn Infant,	816
of Vertigo,	868	Chronic Catarrh of the Middle Ear, Perry Dickie, M.D.,	81
Cauterizing the Throat with Nitrate of Silver, Danger in,	558	Trachoma Amenable to the X-Ray,	705
Certain Cerebral Symptoms Observed During the Course of Treatment for Edemas,	303	Choice of a General Anæsthetic in Ophthalmology, The,	460
Cerebral Symptoms Observed During the Course of Treatment for Edemas, Certain,	303	Chorioiditis in Myopia, Corneal Astigmatism and Central,	551
Cerevisine in Purulent Conditions, in Boils,	800	Chronic Metritis,	60
Cervical Sympathetic Ganglia in Epilepsy, Bilateral Excision of the Superior and Middle,	308	Trachoma Cured by the X-Ray, Valvular Disease of the Heart, E. R. Snader, M.D.,	412
Cervix, The Palliative Treatment of Cancer of the,	388	Chyme Analyses, Why not Absolute Precision in,	64
Characteristics of Ocular Headaches, Chase, Theodore L., M.D. Gonorrhœa in Women,	311	Ciliary Body, Syphiloma of,	949
Diseases of the Stomach and Duodenum Requiring Surgical Interference,	649	Cinchonin Intoxication,	66
Diseases of the Fallopian Tubes, Fracture of the Pelvis During Forceps Delivery,	913	Circumcision, A Homœopathic Substitute for,	73
Chest in Health and in Pulmonary Tuberculosis, The Shape of the,	41	Clergy, Free Medical Treatment of the,	212
Wall in the Development of Phthisis Pulmonalis, The Influence of Traumatism of the, William Baker, A.M., M.D., . . .	870	Clinical Characteristics of Syphilitic Chancre of the Bulbar Conjunctiva,	785
Chickenpox Concurrent with Smallpox,	27	Significance of Pain in the Epigastrium, The,	460
Child in Health and Disease, Dietary of the,	147	Study of Sixty-Two Cases of Intestinal Infection by the Bacillus Dysenteriae in Infants, . . .	308
Children, An Observation in the Acute Diseases of,	868	Cocaine and Adrenalin, Local Anæsthesia in Extraction of Teeth with a Mixture of,	632
Acute Otitis in—A Study of Fifty-One Operative Cases, . . .	393	Mixed with Adrenalin in Laryngeal Surgery,	553
Nervousness in City,	459	Coexisting Intra- and Extrauterine Pregnancy,	62
		Coffee, Skin Effects of Habitual Indulgence,	956
		and Tobacco, Special Reference to Toxic Amblyopias Produced by,	949
		Colchicum Autumnale,	159
		in Chronic Proctitis or Colitis, . . .	151
		Cold Applications,	552

	PAGE		PAGE
Colitis, Colchicum in Chronic Proctitis,	151	Danger of the Trendelenburg Position, The,	57
Collapse and General Sepsis, Treatment of Shock. J. W. Hassler, A.M., M.D.,	576	Dangers of Inflating the Stomach with Carbonic Acid Gas: Its Diagnostic Value. Report of Three Cases with Autopsies,	136
Combination of Carcinoma and Tuberculosis of the Uterus,	224	of Radio-Therapy in Cancer,	782
Complete Correction of Myopia, The,	67	of Salicylate Preparations on the Kidneys, The,	786
Composition of Aqueous Humor in Cases of Senile Cataract,	232	Daylight in the Progress of Malaria, Influence of,	702
Conditions of the Nose which Influence the Chronicity of Ocular Affections. J. Ivimey Dowling, M.D.,	197	Dearborn, Frederick M., M.D. Alopecia Areata in Children,	742
Conium in Tumors of the Breast,	720	Death in the Newborn, Obscure Cause of,	627
Conjunctiva, Ledum Palustra in Echinomoses of the,	397	of Dr. Robert Ellis Dudgeon,	856
Clinical Characteristics of Syphilitic Chancre of the Bulbar,	785	Debility and Prostration of Acute Diseases, Uses of Alstonia Constricta in,	956
Conjunctivitis, Cuprocitral and Its Use in Trachomatous,	626	Defence of the High Potencies,	62
Conservative Treatment of Diseases of Women,	142	Dentists, A Disease of,	232
Contribution to the Treatment of Ulcer of the Stomach, A,	771	Depressions of the Skull in the Newborn, The Treatment of,	55
Copeland, Elmer H., M.D. Mesenteric Thrombosis,	758	Desquamation of the Skin in Typhoid Fever,	274
Correction of an Error,	50	Detail Men, The Follies of,	692
a "Prophylactic,"	940	Diabetes, Improvements in Dietetics in,	793
Cornea by the Use of Subconjunctival Injections of Benzoate of Lithium, Treatment of Scars of the,	728	Adrenalin in,	952
Corneal Maculae, Benzoate of Lithium in the Treatment of,	66	Mellitus, Diabetic Acid in,	951
Opacities, Thuya Oil in,	713	Myopia and,	790
Ulcers,	739	Albuminuria as an Accompaniment of,	137
Ulcers, On the Action of the Antitoxic Serums in the Treatment of Infected,	784	The Dietetic Treatment of,	690
Astigmatism and Central Chorioiditis in Myopia,	551	Sugar Metabolism and,	71
Ulcerations, Iodine Locally to,	312	Oats and,	556
Coryza, Sodium Iodide in,	540	Inspidus, Secale Cornut in,	318
Costal Arch in Diseases of the Abdominal Organs, and Its Importance as a Diagnostic Symptom, The Behavior of the,	623	Mellitus, Pancreatic Extracts in,	556
Counteract the Formation of Cataract, To,	714	Diabetics, Oat Flour in,	554
Cowperthwaite, A. C., M.D. A Differential Diagnosis of the Homœopathic Cardiac Action of Digitalis, Cactus, Spigelia, and Naja Tripudians,	592	Diabetic Dietary, Milk in. Clifford Mitchell, M.D.,	283
Cretagus Oxyacantha,	122	Diabetic Acid in Diabetes Mellitus,	951
Critical Study Concerning the Use of the Intrauterine Baloon and of Metal Dilators in Obstetrics,	385	Diagnostic Value of Blood Examinations,	140
Crotalus in Gangrene,	638	Value of the Normal Constituents of Urine,	899
Cuprocitral and Its Use in Trachomatous Conjunctivitis,	626	Diagnosis and Treatment of Sleeplessness Due to a Weak Heart, The,	631
Cuprum Arsenicosum,	793	Caused by Pains in the Region of the Appendix, Mistakes in,	304
Cystitis, Post-Operative,	474	of Diseases of the Gall-Bladder and Ducts. George T. Mosely, of Gall-Stones by X-Ray,	357
Picric Acid, Locally in,	33	of the Homœopathic Cardiac Action of Digitalis, Cactus, Spigelia, and Naja Tripudians, A Differential. A. C. Cowperthwaite, M.D.,	592
After Gynecological Operations, in Women, Microbial,	711	of Pneumonia in Infants and Children, The Symptomatology and,	317
	386	Diarrhœa, Oxide of Zinc in Infantile. The late R. J. McClatchey, M.D.,	275
Damiana,	156	Diarrhœas of Children, Discussion on the Relation of the Bacillus of Shiga to the Summer,	70
and Its Uses in Mexico,	420	of Infancy—Ætiology and Pathology, The Acute. S. W. Sappington, M.D.,	481
Danger in Cauterizing the Throat with Nitrate of Silver,	558		

	PAGE		PAGE
Diarrhoeas of Infancy—Symptomatology, The Acute. W. H. Bigler, M.D.,	490	Discovery of Radium,	610
of Infancy—Treatment, The Acute. C. S. Raue, M.D.,	496	Disease of Dentists, A,	232
Diazo Reaction, The,	866	of Myocardium,	877
Dickie, Perry, M.D. Chronic Catarrh of the Middle Ear,	81	Diseases of the Stomach and Duodenum Requiring Surgical Interference. Theodore L. Chase, M.D.,	649
Diet of Arterio-Sclerosis,	380	of the Fallopian Tubes,	913
of Chronic Contracted Kidney. G. Morris Golden,	110	Dislocation of Knee Cartilage,	78
Dietary of the Child in Health and Disease,	868	Disorders of the Spleen,	622
Dietetic Treatment of Arterio-Sclerosis,	226	Discussion on the Relation of the Bacillus of Shiga to the Summer Diarrhoeas of Children,	70
Treatment of Diabetes, The,	690	Diseases of the Eye in the So-Called Hay Fever,	626
Dietetics, Principles of the. William H. Van Den Burg, M.D.,	641	Dissemination of the Poison of Eclampsia in the Mother and in the Fetus, The,	223
Differential Diagnosis of the Homœopathic Cardiac Action of Digitalis, Cactus, Spigelia, and Naja Tripudians. A. C. Cowperthwaite, M.D.,	592	Dissolution, The Prophylaxis of. O. S. Haines, M.D.,	94
Diagnosis of Typhoid Fever in Its Earliest Stages,	221	Distracting Advertisement, The,	478
Difficulties and Insufficiency of the Stenosal Theory of Adenoid Deafness,	65	Diuretin and Urinary Organs,	318
Difficulty in Prescribing Accurately,	156	Diverticula of the Esophagus,	480
Digitalis—The Fresh Infusion in Dropsy,	159	of the Esophagus, with the Report of a Case,	456
Cactus, Spigelia, and Naja Tripudians, A Differential Diagnosis of the Homœopathic Cardiac Action of. A. C. Cowperthwaite, M.D.,	592	Doctor's Team as a Financial Burden, The,	218
Disagrees, When,	400	Douche: Its Relation to the Puerperium, The,	799
in Heart Affections. Edward R. Snader, M.D.,	15	Dowling, J. Ivimey, M.D. Conditions of the Nose which Influence the Chronicity of the Ocular Affections,	197
and Icterus,	954	Drainage after Laparotomy,	141
and Theobromine as Sodium Chloride Eliminants,	955	After Abdominal Section,	57
Dignity of Medical Journals Once More, The,	129	Drug-Action, Modern Methods of Studying of. Edwin H. Wolcott, M.D.,	252
of Medical Literature Must be Maintained, The,	50	Drug Diseases and Compulsory Medicine,	149
Dilatation of the Sphincter-Ani as a Therapeutic Procedure,	236	Dropsy as a Symptom, The Importance of,	550
of the Arch of the Aorta, with Special Reference to Recent Studies of this Subject, The Symptomatology of Thirty Cases of,	633	Dudgeon, Robert Ellis, Dr., The Death of,	856
Dionin,	553, 706	Duodenum Requiring Surgical Interference, Diseases of the Stomach and. Theo. L. Chase, M.D.,	649
After Four Years of Experimentation,	470	Duration, Course and Termination of Glycosuria in Children,	869
Dioscorea Villosa Aborts Felons,	777	Dysenteria (Shiga) in Infants, Intestinal Infection by the Bacillus,	544
Diphtheria, The Paralysis of,	320	Dysentery and Allied Conditions, Pure Olive Oil and Its Use in the Treatment of,	622
The Treatment of Laryngeal. C. Sigmund Raue, M.D.,	192	Angophoro Lanceolata in the Treatment of,	78
Antitoxin to Homœopathy, Relation of,	798	Dysmenorrhœa, The Ætiology and Pathogenesis of,	231
Antitoxin if Used During the First Day, Favorable Results From,	780	Nasal,	628
Malignant,	960	Kali Hypermanganicum in,	235
Disappearance of Endocarditic Murmurs in Children, On the,	700	Potassium Permanganate in,	26
Discharge from Urethra,	152	Ear, Chronic Catarrh of the Middle. Perry Dickie, M.D.,	81
Disclaimer of Responsibility, A,	47	Earache, A Mixture for,	553
		Early Sign of Pregnancy, An,	783
		Treatment of Concomitant Convergent Squint,	384
		Easy Method of Percentage Infant Feeding, An,	783

	PAGE		PAGE
Eberhard, H. M., M.D. Accidental Vaccination of Tongue and Pharynx—A Case,	33	Eserin in the Treatment of Post-Operative Intestinal Paralysis,	391
Echymoses of the Conjunctiva, Ledum Palustra in,	397	Post-Operative Intestinal Paralysis,	920
Echymotic Measles,	701	Ether as an Anæsthetic, Chloroform or,	630
Eclampsia, The Pathology and Therapy of,	148	Ethyl Chloride as a General Anæsthetic,	945
A Case of Vaginal Cæsarian Section for,	56	Etiology of Carcinoma,	228
Its Etiology and Treatment, Puerperal. Hudson D. Bishop, M.D.,	596	of Ischuria in Retroflexion of the Gravid Uterus,	313
in the Mother and in the Fœtus, The Dissemination of the Poison of,	223	and Pathology, The Acute Diarrhœas of Infancy. S. W. Sappington, M.D.,	481
and Vaginal Cæsarian Section,	230	and Pathogenesis of Dysmenorrhœa, The,	231
Eclectic Examples, Some,	240	and Therapy of Puerperal Fever, The,	461
Eczema, Treatment of,	925	Eucalyptus,	237
Eddysism, or Christian Science: The Reasons for Its Success. M. W. Vandenburg, M.D.,	351	Eumydrine,	144
Effect of Neurasthenia on the Eyes, The,	705	Exanthem, Hereditary Early Syphilis, Without,	304
of Radium Rays Upon the Visual Apparatus, The,	468	Excision of the Frenum Preputii,	136
Efficient Treatment of Cardiac Failure, The,	226	of Tuberculous Mass from Liver,	307
Electricity in Metrorrhagia,	142	Expectoration—Saltish in Taste and Greenish in Color,	716
Electrolization of Homœopathic Medicines,	954	Experiments to Determine the Value of Formalin in Infected Wounds of the Eye,	468
Endocarditic Murmurs in Children, On the Disappearance of,	700	Experimental Production of Hydræmia,	712
Endocarditis, Some Observations Concerning. Edward R. Snader, M.D.,	329	Experience, A Testimony Based on,	149
Pneumococcus,	943	Experiences with Homœopathy,	951
of Staphylococcic Origin with Fever of an Intermittent Type, Vegetating,	841	with Tetanus,	795
Endometrium and the Formation of Metrotoxin. Internal Secretion of the,	544	Extrauterine Pregnancy,	59, 543
Enlarged Glands,	400	Pregnancy, Coexisting Intra- and,	62
Enteritis in Women, Simulating Pelvic Disease, Catarrhal,	142	Pregnancy with Living Child, A Case of,	391
Enuresis, Thyroidin in Enuresis,	800	Eye Changes in Relation to Renal Diseases,	383
Eosinophile Granulations and Their Relation to Nutrition, The Occurrence of Cells with,	227	Complications of Measles,	143
Epigastrium, The Clinical Significance of Pain in the,	460	Diseases of, Use of Pure Nitric Acid in,	950
Epistaxis, For Habitual,	79	Eyes for Reading, Ill-Effects of Too Early Use of the,	311
Epitheliomatosis of the Breast, Acute,	304	of the Newborn Infant, Prophylaxis of the. Gordon M. Christine, M.D.,	816
Epilepsy, The Treatment of,	455	Eyestrain,	936
Bilateral Excision of the Superior and Middle Cervical Sympathetic Ganglia in,	308	Considered as a Factor in the Production of Lateral Curvature of the Spine,	877
and in Syphilis, Sodium Chloride in,	555	for the Possible Cure of Epilepsy as Tested in Sixty-Eight Cases at the Craig Colony, Non-Operative Relief of,	876
as Tested in Sixty-Eight Cases at the Craig Colony, Non-Operative Relief of Eyestrain for Possible Cure of,	876	Facial Paralysis with Auditory Troubles, A Case of,	675
Epileptic Attacks, Musical Equivalents of,	546	Failing and Broken Compensation, The Management of. A. F. Blackwood, M.D.,	583
Ergotin in Gangrene,	393	Failure of Serum Therapy in Plague, The,	636
Erythema Group of Skin Diseases, On the Visceral Manifestations of the,	305	Fallopian Tubes, Diseases of the,	913
		False Cures of Leukæmia,	301
		Fatal Case of Chorea,	554
		Favorable Results from Diphtheria Antitoxin if Used During the First Day,	780

	PAGE		PAGE
Fecal Fistula in the Treatment of Typhoid Perforation, The Value of,	382	Gray, H. M., M.D. A Case of Primary Sarcoma of the Trachea,	606
Feeding and Care of Children After the First Year, The,	625	Gauze-Bearing Tape and the Gravity Pad in Abdominal Surgery, The,	134
Female Complaints, On Osmodium in,	317	Gelatin Injections for Hæmostasis,	141
Fever, Acute Nephritis as a Complication of Eruptive. Wm. A. Geobegan, M.D.,	809	Geobegan, William A., M.D. Acute Nephritis as a Complication of Eruptive Fevers,	809
Fever During the Puerperium, The Prevention of,	708	General Prognosis of Certain Systemic Diseases as Expressed by the Ocular Signs and Symptoms, "Gray Oil" in Subpalpebral Massage in Place of Subconjunctival Injections and in Ocular Therapeutics,	784
in Childhood, Management of,	624	Givens, A. J., M.D. Paresis,	184
of Indefinite Origin and Its Possible Causes,	547	Glycosuria, Adrenalin in the Treatment of,	798
Fibrinous Vesical Concretion,	230	in Children, Duration, Course and Termination of,	869
Ficker Test for Typhoid Fever, The,	539	Goitre, Mercurius Iod. in,	952
Ficus Religiosa,	480	Golden Mean, The. H. E. Beebe, M.D.,	850
Financial Burden, The Doctor's Team as a,	218	Golden, G. Morris, M.D. The Diet of Chronic Contracted Kidney,	110
Floating Kidney,	141	Gonorrhæa and the Puerperal Period,	56
Follies of Detail Men, The,	692	in Women, The Yeast Treatment of,	389
Forceps in Breech Presentation, The,	874	in Women. Theodore L. Chase, M.D.,	241
For Habitual Epistaxis,	79	of the Para-Urethral Ducts in Women,	462
Formaldehyde, Treatment of Pulmonary Tuberculosis by,	221	Gonorrhæal Inflammations of Joints, Ophthalmia,	285
Formalin in Infected Wound of the Eye, Experiments to Determine the Value of,	468	Gooden, William C., M.D. Optimism versus Pessimism in Therapeutics,	830
Football,	43	Gout, Hydrochloric Acid in,	300
Fracture, The Wiring of Bone for Recent and Ununited,	381	Gouty Nephritis, Primary,	786
of the Pelvis During Forceps Delivery, Report of a Case. Theodore L. Chase, M.D.,	41	Paralysis, On the Symptomatology of,	700
Fragmentary Proving of Variolinum,	717	Gramm, Theodore J., M.D. The Histology of Menstruation,	286
France, Homœopathy in the Old School Practice in,	954	Eserin in Post-Operative Intestinal Paralysis,	920
Franzensbad for the Treatment of Diseases of Women, The Mud-Baths of,	54	Gray Cataract,	236
Fraxinus Americanus for Uterine Hypertrophy,	795	"Gray Oil" in Subpalpebral Massage in Place of Subconjunctival Injections, and in Ocular Therapeutics, The General Prognosis of Certain Systemic Diseases as Expressed by the Ocular Signs and Symptoms,	784
Frenum Preputii, Excision of the Frenum,	136	Gregg, E. R., M.D. Review of the Operation of Cervical Sympathectomy, with a Preliminary Report of Two Cases,	676
Free Medical Treatment of the Clergy,	212	Guernsey, Joseph C., A.M., M.D. The Prophylactic Power of Some Drugs,	801
Frequency of Pulmonary Phthisis in Infancy and Childhood,	903	Gynæcological Operations, Cystitis After,	711
Freyer's Suprapubic Operation, Prostatectomy by. E. H. Pratt, M.D.,	106	Hæmorrhage in Uterine Fibroid, The Cause of,	709
Galactagogue, Lactagol, a New,	545	Hæmostasis, Gelatin Injections for,	141
Gall-Bladder and Ducts, Surgery of the. J. Emmons Briggs,	664	Hahnemann To-Day. Charles Mohr, M.D.,	435
and Ducts, Diagnosis of Diseases of the. George T. Mosely, M.D.,	357	Haines, O. S., M.D. The Prophylaxis of Dissolution,	94
Gall-Stones, About,	795	Hair, Diet, If Falls Out,	945
by X-Ray, Diagnosis of,	849	Halbert, Dr., The Retirement of,	130
Gangrene, Ergotin in,	393		
Crotalus in,	638		
Gastric Disorders, Strychnia Phos. in,	394		
Ulcer, Treatment of,	556		
Ulcer, Round,	319		
Gastritis, The Treatment of Gastrectasis and Chronic,	315		
Gastrectasis and Chronic Gastritis, The Treatment of,	315		

	PAGE		PAGE
Hand Sterilization,	231	Homœopathy in the Old School Prac-	
Hands and of the Vulva, Steriliza-		tice in France,	954
tion of the,	309	to Bacterial Diseases, The Rela-	
Harvard as Bad as That of Aristo-		tion of. J. Herbert Moore,	
cratic Quakerdom, Bigotry Midst		M.D.,	721
the Shades of,	691	Homœopathic Physicians, A Min-	
Hassler, J. W., A.M., M.D. Treat-		isterial Insurance Company	
ment of Shock, Collapse and Gen-		and,	454
eral Sepsis,	576	Medicines, Electrolization of, . .	954
Hay Fever, Diseases of the Eye in		Posology,	952
the So-Called,	626	School, Why Students of Medi-	
Headaches, Characteristics of Ocular,	311	cine Should Select the,	371
Headache and Diseases of the Nose		Substitute for Circumcision,	
and Naso-Pharynx,	942	A,	73
and Other Ocular Reflexes: A		Hoof Disease, Acidum Nitricum in	
Statistical Study, Ocular, . . .	53	Mouth and,	393
Heart, Chronic Valvular Disease of		How to Become a Homœopath, . .	479
the. E. R. Snader, M.D.,	412	Humerus from a Gumma of the	
The Diagnosis and Treatment of		Bone, With Stenosis of the	
Sleeplessness Due to a Weak, .	631	Trachea, Spontaneous Fracture of	
Affections, Rationale of the		the Right,	300
Nauheim Treatment of. B.		Hutchinson, John, M.D. Menopause	
Frank Betts, M.D.,	34	Therapy,	425
Affections, Digitalis in. Edward		Hydrastis Canadensis in Torpidity	
R. Snader, M.D.,	15	of the Bowels,	799
Conditions, Recent Advances in		Hydrocephalus: Illustrated by One	
the Study of,	316	Hundred Stereopticon Slides,	
Disease, Polycythæmia of Con-		Surgery of,	379
genital,	472	Hydrochloric Acid in Gout, . . .	300
Diseases, Some Personal Obser-		Hydrocotyle Asiatica in Treatment	
vations and Experience of the		of Psoriasis,	149
Schott Treatment,	306	Hyoscin in Masturbation,	318
Disease—Norris's Conclusions,		Hyperchlorhydria, Sodium Chloride	
Tuberculosis and,	871	and,	555
And Vessels, Late Effects of		Hypericum, The Surgical Sphere and	
Typhoid Fever on the,	448	the Indications for,	78
in Typhoid Fever, The Call of		Hypertrophy of the Prostate Gland.	
the,	794	M. O. Terry, M.D.,	269
Helmitol as a Disinfectant of the		Hysterectomy for Puerperal Period, .	56
Urine, The Action of,	304	Vaginal and Uterine Carcinoma,	
Heredity on the Eye, The Influence		946	
of,	626	Hysterical Sleep of Thirty Years'	
Hereditary Early Syphilis, Without		Duration,	788
Exanthem,	304	Hystero Trauma. A Case of Mo-	
Syphilis, Thoughts Upon a Case		nodular Blindness Through, . . .	143
of Tardy Ocular,	552	Ichthyol in the Treatment of Tuber-	
Hernia, The Mechanical and Subcu-		culous Glands,	393
aneous Injection—Treatment		Icterus and Digitalis,	954
of. C. Fletcher Souder, M.D., .	525	Iliac Glands in Carcinoma of the	
Atropine in Incarcerated, . . .	786	Uterus, Metastases in the,	542
Hernias by Injection of Alcohol,		Ill-Effects of Too Early Use of the	
Treatment of Reducible,	780	Eyes for Reading,	311
Heroin Should be Cautiously Pre-		Immunity, The Fermentation Theory	
scribed,	395	of Infection and,	140
Herpes Zoster, The Neuralgia of, .	151	to Bacterial Diseases, The	
Hiccough, A Method for the Relief		Modern Theories of,	616
of Obstinate,	480	Importance of Dropsy as a Symp-	
Higgins, R. G., M.D. There are		tom, The,	550
Limits "to the Law,"	120	Improvements in Dietetics in Dia-	
High-Frequency Treatment, . . .	792	betes,	793
Hinkle, W. A., M.D. Homœopathy		In Defence of the Attenuated Drug,	
from Allopathic Sources,	421	Induction of Premature Labor by	
Histology of Menstruation, The.		the Inelastic Bag of Champetiere,	
Theodore J. Gramm, M.D., . . .	286	The. George B. Southwick, M.D.,	
Homœopathy, The Present Status of,	183	740	
And the Latest Discoveries of		Infancy—Ætiology and Pathology,	
Science,	123	The Acute Diarrhœas of. S. W.	
Experiences with,	951	Sappington, M.D.,	481
From Allopathic Sources. W. A.		and Childhood, On the Fre-	
Hinkle, M.D.,	421	quency of Pulmonary Phthisis	
		in,	903

	PAGE		PAGE
Infancy, Symptomatology, The Acute		Joint, Gonorrhœal Inflammations of.	457
Diarrheas of. W. H. Bigler,		Joke Without a Point—To-Day, A.,	560
M.D.,	490	Judging by Results.	640
Treatment, The Acute Diarrheas			
of. C. S. Raue, M.D.,	496	Kali Hypermanganicum in Dysmen-	
Infants, The Nursing of.	225	orrhœa.	235
Infant Feeding, An Easy Method of		Bichromicum After Intranasal	
Percentage.	783	Work,	320
Infection and Immunity, The Fer-		Keratitis, Parenchymatous,	957
mentation Theory of.	140	Kidney, Floating.	141, 945
Puerperal.	948	The Diet of Chronic Contracted.	
Infectious Diseases, Optic Neuritis		G. Morris Golden, M.D.,	110
in.	282	Some of the More Unusual Re-	
Inflammatory Rheumatism,	798	sults of Movable,	313
Influence of Daylight in the Progress		Kidneys, The Dangers of Salicylate	
of Malaria,	702	Preparations on the,	786
of Heredity on the Eye, The,	626	Birch Leaves, a Tea as a Solvent	
of Traumatism of the Chest-Wall		of Stone in the,	629
in the Development of Phthisis		Kind of Loyalty that Counts, The,	557
Pulmonalis. William F. Baker,		Knee Cartilage, Symphytum in Dis-	
A.M., M.D.,	27	location of.	78
Influenza, Nervous Complications of.	701		
Injection—Treatment of Hernia,		Labor and Premature Labor in	
The Mechanical and Subcutaneous.		Tunis,	60
C. Fletcher Souder, M.D.,	525	Lachesis, Some New.	940
Injections of Osmic Acid for Re-		Lactagol, a New Galactagogue,	545
lief of Trifacial Neuralgia,	941	Lacrimal Tumor, The Tubercular.	551
Insanity with Illustrative Cases.		Laparotomy, Drainage After,	141
Manic-Depressive. R. C. Wood-		Larynx, Treatment of Tuberculosis	
man, M.D.,	1	of the,	317
Institute Elections.	128	Thuja Occidentalis, Papillomata	
Internal Secretion of the Endome-		of the,	397
trium and the Formation of Me-		Fauces and Tonsils, Acute In-	
trotoxin.	544	flammation of.	955
"Interrupted Circulation" as a		Laryngeal Surgery, Cocaine Mixed	
Therapeutic Agent.	867	with Adrenalin in.	553
Interruption of Pregnancy in Tu-		Diphtheria, The Treatment of.	
berculous and Acute Febrile Dis-	547	C. Sigmund Raue, M.D.,	192
eases.		Laryngitis, A Case of Aphthous,	704
Intestinal Anastomosis, A New Device		A Simple but Successful Method	
and Method for.	313	of Treating Cases of Tuber-	
Anastomosis, A New Method		cular.	76
of.	382	Late Effects of Typhoid Fever on	
Infection by the Bacillus Dys-		the Heart and Vessels.	448
enteriæ Shiga in Infants.	544	Ledum Palustra in Ecchymoses of	
Infection by the Bacillus Dysen-		the Conjunctiva,	397
teriæ in Infants, A Clinical		Left-Sided Appendicitis,	69
Study of Sixty-Two Cases of,	308	Legislation, Proposed Vicious,	367
Obstruction,	396	Leprosy. Walter Sands Mills, M.D.,	516
Parasitism in Appendicitis.	137	be Cured, Can.	878
Paralysis, Eserin in Post-Opera-		LeSeur, John W., M.D. Presidential	
tive.	920	Address to the Homœopathic Med-	
Paralysis, Physostigmin in Post-		ical Society of the State of New	
Operative.	946	York.	342
Stenosis, Tubercular,	464	Leucocytosis in Diseases of Women,	224
Intoxication, Cinchonin.	66	Leukæmia, False Cures of,	301
Intrauterine Balloon and of Metal		in a Boy of Twelve Years, Acute	
Dilators in Obstetrics, Critical		Lymphoid,	779
Study Concerning the Use of the,	385	Life, A Lecture on Means for the	
Iodide Coryza, Sodium,	540	Prolongation of.	148
of Potash, The.	879	Lithium in the Treatment of Corneal	
Iodides in Arterio-Sclerosis, The,	789	Macule, Benzoate of,	66
Iodine Locally to Corneal Ulcera-		Liver, Excision of Tuberculous Mass	
tions.	312	from,	307
Iodism, To Prevent.	300	Local Anæsthesia,	135
Iodized Catgut.	549	Anæsthesia in Extraction of	
Iridium.	880	Teeth with a Mixture of Co-	
Irregular Discharge of Blood from		caine and Adrenalin,	632
the Vagina.	714	Lubricant for Catheters, Sounds, etc.,	
Is Cancer Infectious.	133	A.	630

	PAGE		PAGE
Lung Following Acute Pneumonia,		Metritis, Chronic,	60
Abscess of the,	139	Metrorrhagia, Electricity in,	142
Lupulin in Sexual Debility,	719	Metrotroxin, Internal Secretion of	
Lycopodium,	317	the Endometrium and the Forma-	
Lymphaticus with Report of Cases,		tion of,	544
Status,	866	Microbial Cystitis in Women,	386
Malaria, Influence of Daylight in		Milk in the Diabetic Dietary. Clif-	
Progress of,	702	ford Mitchell, M.D.,	283
Malignant Diphtheria,	960	Milk in Infant Feeding,	144
Management of Fever in Childhood,	624	Mills, Walter Sands. Leprosy,	516
of Failing and Broken Cardiac		Ministerial Insurance Company and	
Compensation, The. A. L.		Homœopathic Physicians,	454
Blackwood, M.D.,	583	Mistakes in Diagnosis Caused by	
Managements of Pneumonia, The,	791	Pains in the Region of the Appen-	
Manic-Depressive Insanity with		dix,	304
Illustrative Cases. R. C. Wood-		Mistaken Diagnosis of Pregnancy,	141
man, M.D.,	1	Mistletoe,	718
Manifestations of the Erythema		Mitchell, Clifford, M.D. Milk in the	
Group of Skin Diseases, On the		Diabetic Dietary,	283
Visceral,	305	Modern Methods of Studying Drug-	
Mastoiditis, Non-Operative Treat-		Action. Edwin H. Wolcott,	
ment of,	960	M.D.,	252
Masturbation, Hyoscin in,	318	Theories of Immunity to Bac-	
Materia Medica, A Method of Study-		terial Diseases, The,	616
ing the,	394	Modified Operation for Suspension	
McClatchey, R. J., M.D. Oxide of		of the Uterus,	707
Zinc in Infantile Diarrhœa,	275	Mohr, Charles. Hahnemann To-	
McDowell, A. S., M.D. Typhoid		Day,	435
Fever in Children,	908	Monocular Blindness Through	
Measles, Eye Complication of,	143	Hystero-Trauma, A Case of,	143
Ecchymotic,	701	Moore, J. Herbert, M.D. The Rela-	
Note on a Case of Bilateral		tion of Homœopathy to Bacterial	
Blindness Consecutive to,	626	Diseases,	721
Mechanical and Subcutaneous Injec-		Morbidity in the Puerperium After	
tion—Treatment of Hernia, The.		Delivery of Macerated Fœtus,	463
C. S. Fletcher Souder, M.D.,	525	Morphine, A Strange Fact Regard-	
Mechanism of Accommodation in		ing,	557
Man, The,	875	Morrison, Caldwell, M.D. Medical	
Medical Aspects of Christian Science.		Aspects of Christian Science,	161
Caldwell Morrison, M.D.,	161	Mosely, George T., M.D. Diagn-	
Journals Once More, The Digni-		nosis of Diseases of the Gall-	
ty of,	129	Bladder and Ducts,	357
Literature Must be Maintained,		Mouth and Hoof Disease, Acidum	
The Dignity of,	50	Nitricum in,	393
Teachers, The Responsibilities of,	294	Movable Kidney, Some of the More	
Medicinal Treatment, Is Lobar Pneu-		Unusual Results of,	313
monia Favorably Influenced by,	315	Mud-Baths of Franzensbad for the	
Meibomian Cysts, Staphisagria in		Treatment of Diseases of Women,	
Treatment of,	196	The,	54
Menopause Therapy. John Hutch-		Mumps, The Ocular Complications	
inson, M.D.,	425	of,	470
Mental State of the Aurum Patient,		Musical Equivalents of Epileptic	
The,	716	Attacks,	546
Mercurius in Acute Bronchial Affec-		Mustard Seeds, Poisoning by,	787
tions,	238	Mixture for Earache,	553
Iod. in Goitre,	952	Myocardium, Disease of the,	877
Mesenteric Glands, Tuberculosis of.		Myopia, The Complete Correction of,	
George F. Shears, M.D.,	751	and Diabetes,	790
Thrombosis. Elmer H. Cope-		and the Influence of Full Cor-	
land, M.D.,	758	rection, Views as to the Com-	
Metastases in the Iliac Glands in		mencement of and Progress of,	144
Carcinoma of the Uterus,	542	Mysticism, The Attractiveness of,	636
Meteorism After Operation, Physos-		Naja Tripudians, A Differential Di-	
tignin in,	141	agnosis of the Homœopathic Car-	
Method of Operation for Cancer of		diac Action of Digitalis, Cactus,	
the Uterus, The,	55	Spigelia, and. A. C. Cowperth-	
of Sterilizing Catgut, Another,	704	waite, M.D.,	592
of Studying the Materia Medica,	394	Narcosis, The Position of the Arms	
A,		During,	474

	PAGE		PAGE
Narrowness of View Prevent Progress, Does,	636	Nursing of Infants, The,	225
Nasal Dysmenorrhœa,	628	Nyctanthes Arbor Tristis,	720
Naheim Treatment of Heart Affections, Rationale of the. B. Frank Betts, M.D.,	34	Nystagmus, A Study of,	311
Nephritis, Tonsillitis a Cause of Acute,	473	Appearing upon Diversion of the Attention, A Form of,	551
Primary Gouty,	786	Oat Flour in Diabetics,	554
as a Complication of Eruptive Fevers, Acute. Wm. A. Geohagan, M.D.,	809	Oats and Diabetes,	556
in Infancy, Some Observations on the Occurrence of,	226	Obscure Cause of Death in the New-born,	627
Treatment of,	954	Observation in the Acute Diseases of Children, An,	393
with Appendicitis, Toxic,	781	Observations on the Therapeutic Value of Boric Acid,	795
Nervous Affections, Bromides in,	531	on the Therapeutic Uses of the Tincture of Ailanthus,	158
Complications of Influenza,	701	Obstruction and Consequent Distention the Cause of Appendicitis,	471
Complications and Sequelæ of Smallpox, The,	380	Ocular Affections, Conditions of the Nose which Influence the Chronicity of. J. Ivimey Dowling, M.D.,	197
Nervousness in City Children,	459	Complications of Mumps, The,	470
Neuralgia of Herpes Zoster,	151	Headaches, Characteristics of,	311
Trifacial, Osmic Acid Injections for Relief of,	941	Headache and Other Ocular Reflexes: a Statistical Study,	53
a Simple Method for Relieving,	158	Hereditary Syphilis, Thoughts Upon a Case of Tardy,	552
Neurasthenia, Arsenic Iodide in the Treatment of General. W. F. Baker, A.M., M.D.,	321	Signs and Symptoms, "Gray Oil" in Subpalpebral Massage in Place of Subconjunctival Injections, and in Ocular Therapeutics, The General Prognosis of Certain Systemic Diseases as Expressed by the,	784
on the Eyes, The Effect of,	705	Therapeutics, The General Prognosis of Central Systemic Diseases as Expressed by the Ocular Signs and Symptoms, "Gray Oil" in Subpalpebral Massage in Place of Subconjunctival Infections, and in,	784
Neurone: Its Functions and Its Nutrition. The. John J. Tuller, M.D.,	202	Therapeutics, Topical. William Spencer, M.D.,	502
New Dental Signs of Hereditary Syphilis,	468	Oculomotor Palsies, Alcohol,	469
Method of Intestinal Anastomosis,	382	Occurrence of Cells with Eosinophile Granulations and Their Relation to Nutrition,	227
Resource in Persistent Vomiting, A,	400	Oedema, The Rôle of Sodium Chloride in the Production and Treatment of,	137
Nicotine, The Action of,	558	Sodium Chloride in,	555
Nihilopathy,	32	Oedemas, Certain Central Symptoms Observed During the Course of Treatment of,	303
Nitrate of Silver, Danger in Cauterizing the Throat with,	558	Esophagus, Diverticula of the,	480
Nitric Acid,	160	Baptisia in Spasmodic Structure of the,	395
Acid, Use of, in Treatment of Diseases of the Eye,	950	with the Report of a Case, Diverticula of the,	456
Nitricum in Mouth and Hoof Disease, Acidum,	393	Oil of Sandalwood,	399
Nitroglycerin,	79	Olive Oil and Its Use in the Treatment of Chronic Dysentery and Allied Conditions, Pure,	622
Nodular Adenoma of the Vulva, A Peculiar Form of,	873	One Cause of Alopecia Areata,	782
Non-Operative Relief of Eyestrain for the Possible Cure of Epilepsy as Tested in Sixty-Eight Cases at the Craig Colony,	876	On Osmodium in Female Complaints, Removal, After Suprapubic Cystotomy, of the Prostate and of the Prostatic Urethra,	233
Treatment of Mastoiditis,	960	Open-Air Treatment of Broucho-	
Normal Constituents of Urine, Diagnostic Value of,	899		
Nose, Small Bleeding Ulcer in,	615		
Notes Concerning the Throat, which Influence the Chronicity of Ocular Affections, Conditions of the. J. Ivimey Dowling, M.D.,	717		
and Naso-Pharynx, Diseases of, Producing Headache,	942		
Note on a Case of Bilateral Blindness Consecutive to Measles,	626		
Notes Concerning the Throat and Nose,	717		
Nurse, The Trained Child's,	371		
Nursing a Tetanus Case,	719		

	PAGE		PAGE
Pneumonia Complicating Whooping-Cough, The,	473	Pelvic Diseases, Relation of, to Appendix,	947
Operation for Cancer of the Uterus, The Method of,	55	Floor Lacerations, The Preventive Treatment of,	872
Ophthalmic, Gonorrhœal,	285	Pennsylvania State Society Meeting, The,	864
Ophthalmology, The Choice of a General Anæsthetic in,	460	Pericarditis Secondary to Pneumonia; Operation: Recovery, A Case of Purulent,	229
Optic Neuritis in Infectious Diseases,	282	Pericranium, Without Hæmorrhage, Trepanation Under Local Anæsthesia and Separation of the,	546
Optimism <i>versus</i> Pessimism in Therapeutics. Wm. C. Goodno, M.D.,	830	Peritoneal Adhesions,	146
Original Proving of the Drug, <i>Stellaria Media</i> , by the University of Michigan Society of Drug-Provers, An,	560	Personal Experiences in Angina Pectoris,	237
Osmic Acid, Injections for Relief of Trifacial Neuralgia,	941	Perspiration,	381
Osteitis Deformans in One Family, Two Cases of,	225	Pertussis, The Treatment of,	639
Osteo-Myelitis of the Sacrum, A Case of Acute Primary,	632	Post-Operative Pneumonia,	366
Osteopaths,	239	Phthisiophobia,	532
Otitis, Acute in Children—A Study of Fifty-One Operative Cases,	950	Physostigmin in Meteorism After Operation,	141
Our Responsibility in Tuberculosis,	125	in Post-Operative Intestinal Paralysis,	946
School of Medicine is Permanent,	880	Phytolacca in Aphonia,	479
Oxide of Zinc in Infantile Diarrhœa. Late R. J. McClatchey, M.D.,	275	Phosphorus in Suspected Malignant Disease of the Stomach,	149
Paine, Horace Marshfield, M.D., A.M., Pain in the Epigastrium, The Clinical Significance of,	130	Pierce, Willard Ide, M.D. Some Prophylactic Remedies,	401
Pains in the Region of the Appendix, Mistakes in Diagnosis Caused by,	460	"Pink-Eye" and Its Treatment,	394
Palliative Treatment of Cancer of the Cervix, The,	304	Sweat," Remedies for,	956
Pancreatic Extracts in Diabetes Mellitus,	388	Placenta, Rupture of the Uterus in Manual Separation of the,	465
Papillomata of the Larynx, Thuja Occidentalis,	556	Plague, The Failure of Serum Therapy in,	636
Paraplegia, Spastic. John E. Wilson, M.D.,	397	Plantago Major, Use in Otalgia,	955
Paralysis, Eserin in the Treatment of Post-Operative Intestinal,	277	Pleurisy in Childhood, Pneumonia and. C. Sigmund Raue, M.D.,	842
Intestinal, Eserin in Post-Operative,	391	with Effusion, Treating of,	792
On the Symptomatology of Gouty,	920	Pelvis During Forceps Delivery, Report of a Case, Fracture of the Theodore L. Chase, M.D.,	41
of Diphtheria, The,	700	Peritonitis, The Treatment of Tubercular,	783
with Auditory Troubles, A Case of Facial,	320	Pessimism in Therapeutics, Optimism <i>versus</i> . William C. Goodno, M.D.,	830
Parasyphilitic Affections,	675	Phthisiophobia Officinalis,	853
Paresis. A. J. Givens, M.D.,	69	Phthisis Pulmonalis, The Influence of Traumatism of the Chest-Wall in the Development of. William Baker, A.M., M.D.,	27
Pathology, The Acute Diarrhœas of Infancy—Ætiology and. S. W. Sappington, M.D.,	184	Pieric Acid Locally in Cystitis,	33
The Relation of Homœopathic Therapeutics to Modern,	481	Placental Tumor,	699
of Acute and Chronic Disease, The Unobserved,	77	Pleuritis, Treatment of,	944
Pathogenesis and Dysmenorrhœa, The Ætiology and,	635	Pneumonia, Some Observations on. Treatment of,	639
Pathologist and the Symptomalogist, The,	231	Post-Operative,	366
Patient, The Responsibility of the Non-Paying,	878	The Prophylaxis of,	215
Peculiar Form of Nodular Adenoma of the Vulva, A,	220	The Treatment of,	397
Pelvic Diseases, Relations of the Alimentary Canal to,	873	An Analysis of One Hundred and Fifty Cases of Deaths from. The Managements of,	865
	706	and Pleurisy in Childhood. C. Sigmund Raue, M.D.,	791
		Favorably Influenced by Medicinal Treatment, Is Lobar,	842
		in Infants and Children, The Symptomatology and Diagnosis of,	315
			317

	PAGE		PAGE
Pneumonia, Operation: Recovery, A Case of Purulent Pericarditis Secondary to,	229	Pre-Typhoid State,	293
Pneumococcus Endocarditis,	943	Prevention of Fever During the Puerperium, The,	708
Infections,	471	of Fever During the Puerperium, The,	874
Pneumothorax Associated with Fracture of the Ribs,	63	Preventive Treatment of Pelvic Floor Lacerations, The,	872
Poison of Eclampsia in the Mother and in the Fetus. The Dissemination of the,	223	Primary Carcinoma of the Bulbous Urethra,	383
Poisoning by Bromoform,	80	Gouty Nephritis,	786
by Mustard Seeds,	787	Primula Vulgaris,	78
Symptoms After Thirty Grains of Salicylate of Soda,	303	Principles of Dietetics, William H. VanDenBurg, M.D.,	641
by Potato Salad,	301	Proctitis or Colitis, Colchicum in Chronic,	151
from Eating Castor Beans,	317	Profesion for Non-Paying Patient, The Responsibility of the,	220
from a Sublimated Vaginal Douche,	478	Progressive Idiopathic Pernicious Anæmia: Picric Acid,	480
Polycythæmia of Congenital Heart Disease,	472	Prolapsus Recti,	960
Position of the Arms During Narcosis, The,	474	Prophylactic Power of Some Drugs, The. Joseph C. Guernsey, A.M., M.D.,	801
Posology from a Homœopathic Standpoint,	952	Remedies, Some. Willard Ide Pierce, M.D.,	401
Post-Mortem Pupillary Changes,	68	Prophylaxis and Treatment of Cardiac Debility in Advancing Middle-Life, The,	398
Operative Cystitis,	474	of Dissolution, The. O. S. Haines, M.D.,	94
Partum Infections of the Uterus, The Rational Treatment of,	54	of the Eyes of the Newborn Infants, Gordon M. Christine, M.D.,	816
Postural Albuminuria,	553	Proposed Vicious Legislation,	367
Potato Salad, Poisoning by,	301	Prostate, Chloride of Ammonia in Enlarged,	320
Potassium Permanganate in Dysmenorrhœa,	26	and of the Prostatic Urethra, On the Removal, After Suprapubic Cystotomy, of the,	233
Practical Observations on the Strength of Medicines,	133	Gland, Hypertrophy of the. M. O. Terry, M.D.,	269
Practice, Stumbling-Blocks in Medical,	926	Prostatic Urethra, On the Removal, After Suprapubic Cystotomy of the Prostate and of the,	233
Practitioner of Medicine, The Relation of the Pathologist to the,	452	Prostatectomy by Freyer's Suprapubic Operation. E. H. Pratt, M.D.,	106
Pratt, E. H., M.D. Prostatectomy by Freyer's Suprapubic Operation,	106	Prophylaxis of Pneumonia, The,	215
Pregnancy, Mistaken Diagnosis of,	141	Pruritus, Agaricus Muscarius,	153
Vomiting of,	310	Pseudo-Appendicitis, Some Forms of,	624
Coexisting Intra- and Extra-uterine,	62	Psoriasis, Hydrocotyle Asiatica in Treatment of,	149
The Treatment of Tubal,	222	Congenitalium,	952
Extrauterine,	543	Syphilitica and Aurum Muriatum,	152
The Significance of Urinalysis in Vomiting of,	227	Thyroid Treatment,	395
An Early Sign of,	462	of the Palms of the Hands,	546
in Tuberculosis and Acute Febrile Diseases, Interruption of,	783	Puberty, The Albuminuria of,	790
Premature Labor by the Inelastic Bag of Champétière, The Induction of. George B. Southwick, M.D.,	547	Pudanal Hæmatocele. James C. Wood, M.D.,	272
Labor in Tunis, Labor and,	740	Puerperal Eclampsia—Its Etiology and Treatment. Hudson D. Bishop, M.D.,	596
Preputial Adhesions, Reflex Disturbances From,	60	Infection,	948
Preputii, Excision of the Frenum,	703	Infection, Hysterectomy for,	56
Present Status of Homœopathy,	183	Period, Gonorrhœa and the,	56
Status of the Surgery of the Stomach,	881	Puerperium, The Prevention of Fever During the,	874
Presentation of Therapeutic Facts, The,	477	After Delivery of Macerated Fetus, Morbidity in the,	463
Presidential Address. John Preston Sutherland, M.D.,	561		
Address to the Homœopathic Medical Society of the State of New York. J.W. LeSeur, M.D.,	342		

	PAGE		PAGE
Pulmonary Phthisis, Frequency of, . . .	903	Renal Diseases, Eye Changes in Re-	383
in Infancy and Childhood, . . .	68	lation to, . . .	133
Pupillary Changes, Post-Mortem, . . .	384	Repeated Tubal Pregnancy, . . .	541
Pupil in Tabes, The, . . .	622	Report of the Royal Commission on	47
Pure Olive Oil and Its Use in the	42	the Relation of Human and Bo-	220
Treatment of Chronic Dysentery	800	vine Tuberculosis, . . .	294
and Allied Conditions, . . .	865	Responsibility, A Disclaimer of,	384
Purgatives, Subcutaneous Injection	130	of the Profession for Non-Paying	313
of, . . .	676	Patient, . . .	798
Purulent Conditions, Cerevisine in, . .	110	Responsibilities of Medical Teachers,	63
Pericarditis Secondary to Pneu-	233	The, . . .	233
monia: Operation; Recovery,	729	Results of X-Ray Treatment, . . .	700
A Case of, . . .	782	Retinal Extract for Atrophic Retinæ,	713
		Retirement of Dr. Halbert, The, . .	390
Quacks and Quackery, . . .	535	Retroflexion of the Gravid Uterus,	56
Quinine Intoxication, . . .	233	Ætiology of Ischuria in, . . .	954
		Review of the Operation of Cervical	60
Radiotherapy, Some Experiments in.	729	Sympathectomy, with a Prelimi-	632
Frank Benson, Jr., M.D., . . .	782	nary Report of Two Cases. A. E.	303
in Cancer, The Danger of, . . .	610	R. Gregg, M.D., . . .	180
Radium, The Discovery of, . . .	68	Rheumatism, Inflammatory, . . .	240
and Blindness, . . .	623	Treatment of Acute Articular.	240
Rays and Their Action on the	468	E. Wilton Brown, M.D., . . .	399
Normal and Blind Eye, . . .	233	Rhythmic Traction of the Nose,	465
Rays Upon the Visual Apparatus,	134	Another Method of Restoring Per-	786
The Effects of, . . .	34	sons to Consciousness, . . .	786
Rays in Ocular Therapy, Rönt-	54	Ribs, Pneumothorax Associated with	954
gen and, . . .	842	Fracture of the, . . .	60
Rare Case of Appendicular Abscess, . .	496	Röntgen and Radium Rays in Ocu-	399
Rationale of the Nauheim Treatment	192	lar Therapy, . . .	319
of Heart Affections. B. Frank	952	Round Gastric Ulcer, . . .	713
Betts, M.D., . . .	706	Run Down, . . .	390
Rational Treatment of Post-Partum	798	Rupture of the Symphysis During	56
Infections of the Uterus, . . .	721	Labor, . . .	465
Raue, C. Sigmund, M.D. Pneumonia	77	of the Uterus, . . .	954
and Pleurisy in Childhood, . . .	297	of the Uterus in Manual Separation	630
The Acute Diarrhœas of Infancy	452	of the Placenta, . . .	481
—Treatment, . . .	778	of the Uterus with Especial Ref-	302
The Treatment of Laryngeal	956	erence to the Mechanism of	139
Diphtheria, . . .		Rupture, Some Rare Cases of, . .	
Recrudescence Typhoid, . . .			
Rectal Origin of Some Diseases of			
Women, The, . . .			
Rectum, Prolapse of, . . .			
Reducible Hernias by Injection of			
Alcohol, Treatment of, . . .			
Reflex Disturbances from Preputial			
Adhesions, . . .			
Relations of the Alimentary Canal to			
Pelvic Diseases, . . .			
Relation of Diphtheria Antitoxin to			
Homœopathy, . . .			
of Homœopathy to Bacterial			
Diseases, The. J. Herbert			
Moore, M.D., . . .			
of Homœopathic Therapeutics to			
Modern Pathology, . . .			
of the House to Tuberculosis,			
The, . . .			
of the Pathologist to the Practi-			
tioner of Medicine, . . .			
of Sanitary Science to the Alco-			
hol Disease. A. W. Atkinson,			
M.D., . . .			
of Tonsillitis with Other Dis-			
eases, The, . . .			
Remedies That Will Abort Suppura-			
tive Tonsillitis, . . .			
for "Pink-Sweat," . . .			

PAGE	PAGE
Schott Treatment of Heart Diseases, Some Personal Observations and Experience of the,	306
Scraps,	155
Scylla and Charybdis,	880
Secale Cornut in Diabetes Insipidus, Seibert, Walter W., M.D. The Diag- nostic Value of the Normal Con- stituents of Urine,	318 899
Sepsis, Treatment of Shock, Collapse and General, J. W. Hassler, A.M., M.D.,	576
Serum Therapy in Plague, The Fail- ure of,	636
Sex at Will,	952
Sexual Debility, Lupulin in,	719
Shape of the Chest in Health and in Pulmonary Tuberculosis, The, . . .	870
Shears, George F., M.D. Tubercu- losis of Mesenteric Glands,	751
Shiga to the Summer Diarrhœas of Children, Discussion on the Rela- tion of the Bacillus of,	70
Shock, Collapse and General Sepsis, Treatment of, J. W. Hassler, A.M., M.D.,	576
Should the Abdominal Cavity Ever be Flushed? Dewitt G. Wilcox, M.D.,	748
Significance of Urinalysis in Preg- nancy, The,	227
Simple but Successful Method of Treating Cases of Tubercular Lar- yngitis,	76
Skin Diseases, On the Visceral Mani- festations of the Erythema Group of,	305
Effects of Habitual Coffee Indul- gence,	956
in Typhoid Fever, Desquama- tion of the,	274
Skull in the Newborn, The Treat- ment of Depressions of the,	55
Sleep of Thirty Years' Duration, Hysterical,	788
Sleeplessness Due to a Weak Heart, The Diagnosis and Treatment of, Small Bleeding Ulcer in Nose, . . .	631 615
Smallpox, The Nervous Complica- tions and Sequelæ of,	388
Snader, Edward R., M.D. Some Ob- servations Concerning Endo- carditis,	329
Chronic Valvular Disease of the Heart,	412
Digitalis in Heart Affections, . . .	15
On the Frequency of Pulmo- nary Phthisis in Infancy and Childhood,	903
Sodium Chloride and Hyperchlor- hydria,	555
Chloride in Epilepsy and in Syphilis,	555
Chloride in Œdema,	555
Iodide in Coryza,	540
Chloride in the Production and Treatment of Œdema, The Rôle of,	137
Chloride, Digitalis and Theo- bromine as Eliminants of,	955
Sodium in Tinnitus Aurum, Bromide of,	220
Salicylate in Cholelithiasis,	556
Some Brief Notes Upon a Few of the Newer Remedies,	237
Eclectic Examples,	240
Experiments in Radiotherapy. Frank C. Benson, Jr., M.D.,	729
Forms of Pseudo-Appendicitis, . . .	624
Observations Concerning Endo- carditis, Edward R. Snader, M.D.,	329
Personal Observations and Ex- perience of the Schott Treat- ment of Heart Diseases,	306
Rare Cases of Rupture of the Uterus With Especial Refer- ence to the Mechanism of Rupture,	224
Observations on the Diagnosis of Typhoid Fever,	781
Observations on the Occurrence of Nephritis in Infancy,	226
Observations on Pneumonia,	639
of the More Unusual Results of Movable Kidney,	313
Prophylactic Remedies, Willard Ide Pierce, M.D.,	401
Results With Remedies in Dis- eases of the Urinary Organs, . . .	76
Souder, C. Fletcher, M.D. The Mechanical and Subcutaneous In- jection—Treatment of Hernia, . . .	525
Southwick, George B., M.D. The Induction of Premature Labor by the Inelastic Bag of Champetiere, . .	740
Sparteine,	556
Spastic Paraplegia, John E. Wilson, M.D.,	277
Speakman, Wm. W., M.D. Stum- bling-Blocks in Medical Practice, . .	926
Specialists and Specialism,	939
Spencer, William, M.D. Topical Ocu- lar Therapeutics,	502
Sphincter-Ani as a Therapeutic Pro- cedure, Dilatation of the,	236
Spigelia, and Naja Tripudians, A Differential Diagnosis of the Homœopathic Cardiac Action of Digitalis, Cactus, A. C. Cowperth- waite, M.D.,	592
Spine, Eyestrain Considered as a Factor in the Production of Lateral Curvature of the,	877
Spinal Irritation,	399
Spleen, Disorders of the,	622
Spontaneous Fracture of the Right Humerus from a Gumma of the Bone, with Stenosis of the Trachea, Squint, The Early Treatment of Concomitant Convergent,	300 384
Staphisagria in Treatment of Mei- bomian Cysts,	196
State Board Report,	695
Status Lymphaticus with Report of Cases,	866
Stellaria Media, by the University of Michigan Society of Drug-Prov- ers, An Original Proving of the Drug,	560

	PAGE		PAGE
Stenosal Theory of Adenoid Deafness, Difficulties and Insufficiency of the,	65	Symptomatology of Gouty Paralysis, On the,	700
Sterilization, Hand,	231	of Thirty Cases of Dilation of the Arch of the Aorta, with Special Reference to Recent Studies of this Subject,	633
of the Hands and of the Vulva,	309	Syphilis, New Dental Signs of Hereditary,	468
Sterilizing Catgut, Another Method of,	704	Thoughts Upon a Case of Tardy Ocular Hereditary,	552
Stomach, A Contribution to the Treatment of Ulcer of the,	771	Sodium Chloride in Epilepsy and in,	555
and Duodenum Requiring Surgical Interference, Diseases of the, Theodore L. Chase, M.D., with Carbonic Acid Gas; Its Diagnostic Value, Report of Three Cases of Autopsies, The Dangers of Inflating the,	649	Terminal,	52
The Present Status of the Surgery of,	136	Hæmorrhagica Neonatorum,	869
Strange Fact Regarding Morphine, A,	881	Without Exanthem, Hereditary Early,	304
Strychnia Phos. in Gastric Disorders,	557	Syphilitic Chancre of the Bulbar Conjunctiva, Clinical Characteristics of,	785
Study of Berberis,	394	Syphiloma of the Ciliary Body,	949
Studying the Materia Medica, A Method of,	559		
Stumbling-Blocks in Medical Practice,	394	Tabacum, Use of,	958
Subcutaneous Injection of Purgatives,	926	Tabes, The Pupil in,	384
Injection of Saline Solutions,	42	Mesenterica,	79
Subtropical Trachoma and a New Remedy in Its Treatment,	954	Tapeworm, Treatment of,	51
Successful Treatment of Tetanus, The,	68	Teaching of Therapeutics: a Symposium, The,	68
Sugar Metabolism and Diabetes,	719	Terminal Syphilis,	52
Summer Vacation, The,	71	Terry, M. O., M.D. Hypertrophy of the Prostate Gland,	269
Suppurating Breasts,	639	Testimony Based on Experience, A,	149
Suprarenals, Treatment of Severe Hæmorrhages from Internal Organs with Extracts of the,	159	Tetanus, The Successful Treatment of,	719
Surgery as a Measure of Moral Reform,	547	Report of Two Cases Cured by Tetanus Antitoxin,	945
of Hydrocephalus, Illustrated by One Hundred Stereopticon Slides,	774	Experiences with,	795
of the Gall-Bladder and Ducts,	379	The Anaesthetist,	693
J. Emmons Briggs, M.D.,	664	Fermentation Theory of Infection and Immunity,	140
of the Stomach, Present Status of,	881	Ficker Test for Typhoid Fever,	539
of Tumors of the Brain,	458	There are Limits to "the Law." R. G. Higgins, M.D.,	120
Surgical Sphere and Indications for Hypericum,	78	Therapeutic Value of Boric Acid, Observations on the,	795
Treatment of Salpingitis, The,	60	Therapeutics, Optimism <i>versus</i> Pessimism in, William C. Goodno, M.D.,	830
Suspension of the Uterus, A Modified Operation for,	707	a Symposium, The Teaching of,	68
Sutherland, John Preston, M.D. Presidential Address,	561	Hints in Basedow's Disease, A Few,	787
Sympathectomy, with a Preliminary Report of Two Cases, A Review of the Operation of Cervical, E. R. Gregg, M.D.,	676	of Cataracta Senilis,	74
Symphysis During Labor, Rupture of the,	390	Skepticism,	715
Symphytum in Dislocation of Knee Cartilage,	78	Thoughts Upon a Case of Tardy Ocular Hereditary Syphilis,	552
Symptomatology and Diagnosis of Pneumonia in Infants and Children, The,	317	Throat and Nose, Notes Concerning the,	717
Symptomatologist, The Pathologist and the,	878	with Nitrate of Silver, Danger in Cauterizing the,	558
Symptomatology, The Acute Diarrheas of Infancy, W. H. Bigler, M.D.,	490	Thrombosis, Mesenteric, Elmer H. Copeland, M.D.,	758
		Thuya Oil in Corneal Opacities,	713
		Thyroid Therapy, An Untoward Result of,	545
		Treatment, Psoriasis,	395
		Thyroidin in Enuresis,	800
		Tiunitus Aurum, Bromide of Sodium in,	220
		Tobacco and Coffee, Special Reference to Toxic Amblyopias Produced by,	949

	PAGE		PAGE
To-Day, A Joke without a Point, . . .	560	Treatment of Laryngeal Diphtheria,	
Tomlinson, W. L., M.D. A Case of		The. C. Sigmund Raue, M.D.,	192
Primary Sarcoma of the Trachea, .	606	of Mastoiditis, Non-Operative, .	960
Tonsils, Fauces and Larynx, Acute		of Meibomian Cysts, Staphisag-	
Inflammation of, . . .	955	ria in, . . .	196
Tonsillitis, Remedies That will Abort		of Nephritis, . . .	954
Suppurative, . . .	211	of Pertussis, The, . . .	639
a Cause of Acute Nephritis, . . .	473	of Pleuritis, . . .	944
with Other Diseases. The Relation		of Pneumonia, The, . . .	397
of, . . .	778	of Pneumonia, . . .	639
Topical Applications to the Upper		of Post-Operative Intestinal Pa-	
Air-Tract, A Consideration of		ralysis, Eserin in the, . . .	391
the Value of, . . .	549	of Pulmonary Tuberculosis of	
Ocular Therapeutics. W. Spence,		Formaldehyde, . . .	221
M.D., . . .	502	of Reducible Hernias by Injec-	
Toxic Amblyopias With Special Refer-		tions of Alcohol, . . .	780
ence to Those Produced by		of Sarcomas by the X-Rays, . . .	302
Tobacco and Coffee, . . .	949	of Scars of the Cornea by the	
Nephritis with Appendicitis, .	781	Use of Subconjunctival Injec-	
Trachea, Spontaneous Fracture of the		tions of Benzoate of Lithium,	728
Right Humerus from a Gumma		of Severe Hæmorrhage from In-	
of the Bone, with Stenosis of		ternal Organs with Extract of	
the, . . .	300	the Suprarenals, . . .	547
A Case of Primary Sarcoma of		of Shock, Collapse and General	
the. H. M. Gay, M.D., and W.		Sepsis. J. W. Hassler, A.M.,	
I. Tomlinson, M.D., . . .	606	M.D., . . .	576
Tracheotomy, Another Method of		of Sleeplessness Due to a Weak	
Doing, . . .	545	Heart. The Diagnosis and, . .	631
Trachoma Amenable to the X-Ray,		of Tapeworm, . . .	51
Chronic, . . .	705	of Typhoid Fever, The, . . .	475
and a New Remedy in Its Treat-		of Tubal Pregnancy, The, . . .	222
ment, Subtropical, . . .	68	of Tubercular Peritonitis, The, .	783
Trachomatous Conjunctivitis, Cu-		of Tuberculosis of the Larynx, .	317
procitral and Its Use in, . . .	626	of Tuberculous Gland, Ichthyol	
Trained Child's Nurse, The, . . .	377	in the, . . .	393
Traumatism of the Chest-Wall in the		of Ulcer of the Stomach, A Con-	
Development of Phthisis Pulmo-		tribution to the, . . .	771
nalis. The Influence of. William		Trendelenburg Position, The Danger	
F. Baker, A.M., M.D., . . .	27	of the, . . .	57
Treating of Pleurisy with Effusion, .	792	Trepanation Under Local Anæ-	
Treatment, Cholelithiasis and Its, .	637	sthesia and Separation of the Peri-	
The Acute Diarrhoeas of Infancy.		cranium, without Hæmorrhage, .	546
C. S. Raue, M.D., . . .	496	Tubal Pregnancy, The Treatment of,	
for Œdemas, Certain Cerebral		Pregnancies, Repeated, . . .	133
Symptoms Observed During		Tubercular Intestinal Stenosis, . .	464
the Course of, . . .	303	Lacrimal Tumor, The, . . .	551
of Abortion, The, . . .	710	Laryngitis, A Simple but Suc-	
of Acute Articular Rheumatism.		cessful Method of Treating	
E. Wilton Brown, M.D., . . .	114	Cases of, . . .	76
of Angina Pectoris, . . .	53	Peritonitis, The Treatment of, .	783
of Aneurysms of the Aorta,		Tuberculosis, Our Responsibility	
On, . . .	705	in, . . .	125
of Arterio-Sclerosis, Dietetic, .	226	The Shape of the Chest in	
of Cardiac Debility in Advanc-		Health and in Pulmonary, . .	870
ing Middle-Life, The Prophyl-		Report of the Royal Commis-	
axis and, . . .	398	sion on the Relation of Human	
of Cardiac Failure. The Efficient,		and Bovine, . . .	541
of Concomitant Convergent		The Relation of the House to, . .	297
Squint, The Early, . . .	384	and Acute Febrile Diseases, In-	
of Depression of the Skull in the		terruption of Pregnancy in, . .	547
Newborn, The, . . .	55	by Formaldehyde, Treatment of	
of Diseases of Bacterial Origin,		Pulmonary, . . .	221
On, . . .	797	and Heart Disease—Norris's Con-	
of Diseases of Women, Conserva-		clusions, . . .	871
tive, . . .	142	of the Larynx, Treatment of, . .	317
of Epilepsy, The, . . .	455	of Mesenteric Gland. George H.	
of Gastrectasis and Chronic Gas-		Shears, M.D., . . .	751
tritis, . . .	315	of the Urinary System in Women,	
of Gastric Ulcer, . . .	556	of the Uterus, Combination of	
of Gonorrhœa in Women, The, . .	389	Carcinoma and, . . .	224

	PAGE		PAGE
Tuberculous Glands, Ichthyol in the		Uterus, With Especial Reference to	
Treatment of,	393	the Mechanism of Rupture, Some	
Mass from Liver, Excision of, . .	307	Rare Cases of Rupture,	224
Tuller, John J., M.D. The Neurone:		Vaccination, Variolinum, The New,	73
Its Functions and Its Nutrition, . .	202	of Tongue and Pharynx—A Case	
Tumors of the Brain, Surgery of, . .	458	Accidental. H. M. Eberhard,	
Tunis, Labor and Premature Labor		M.D.,	33
in,	60	Vagina, Irregular Discharges of	
Two Cases, Osteitis Deformans in One		Blood from the,	714
Family,	225	Vaginal Caesarian Section for Ec-	
Typhoid Fever, The Care of the		lampsia, A Case of,	56
Heart in,	794	Vaginal Drainage After Abdominal	
Fever, The Treatment of,	475	Section, The Advantages of, . .	628
Fever, the Ficker Test for,	539	Hysterectomy and Uterine Car-	
Fever, Desquamation of the Skin		cinoma,	946
in,	274	Value of a Fecal Fistula in the Treat-	
Fever, Some Observations on the		ment of Typhoid Perforation, The,	382
Diagnosis of,	781	Vandenburg, W. M., M.D. Eddyism,	
Fever in Its Earliest Stages, Dif-		or Christian Science, The Reason	
ferential Diagnosis of,	221	for Success,	351
Fever on the Heart and Vessels,		William H., M.D. Principles of	
Late Effects of,	448	Dietetics,	641
Fever in Children,	908	Van Lennep, Wm. B., M.D. The	
Perforation, The Value of a		Present Status of the Surgery of	
Fecal Fistula in the Treatment		the Stomach,	881
of,	382	Variolinum, Fragmentary Proving	
Recrudescant,	952	of,	717
Ulcer in the Nose, Small Bleeding, .	615	the New Vaccination,	73
of the Stomach, A Contribution		Vegetating Endocarditis of Staphy-	
to the Treatment of,	771	lococcic Origin, with Fever of an	
Unobserved Pathology of Acute and		Intermittent Type,	841
Chronic Disease, The,	635	Veneral Warts,	942
Untoward Result of Thyroid Ther-		Venesection in Proper Cases, The	
apy,	545	Use of,	239
Upper Air-Tract, A Consideration of		Veratrum Album,	160
the Value of Topical Application		Verifications of Cajaput,	478
to the,	549	Vertigo, Causes of,	868
Urethra, Discharges from,	152	with Falling Forward, Arteme-	
Primary Carcinoma of the Bul-		sia Abrotanum,	714
bous,	383	Vesical Concretion, Fibrinous, . .	230
Urethral Ducts in Women, Gonorr-		Views as to the Commencement of	
rhœa of the Para,	462	and Progress of Myopia and the	
Urine, Diagnostic Value of the Nor-		Influence of Full Correction, . .	144
mal Constituents of,	899	Visceral Manifestations of the Eryth-	
The Action of Helmitol as a		ema Group of Skin Diseases,	
Disinfectant of the,	304	On the,	305
Urinalysis in Pregnancy, The Sig-		Vomiting, A New Resource in Per-	
nificance of,	227	sistent,	400
Urinary Organs, Some Results With		of Pregnancy,	310, 462
Remedies in Diseases of		of Pregnancy, Anacardium Ori-	
the,	76	entale in the,	582
Poisoning,	871	Vulva, Sterilization of the Hands	
System in Women, Tuberculosis		and,	309
of the,	387	A Peculiar Form of Nodular	
Use of Venesection in Proper Cases,		Adenoma of the,	873
The,	239	Warts, Venereal,	294
Uterine Hypertrophy, Fraxinus		Water, Boiled and Filtered, . . .	541
Americanus for,	795	We are Discovered,	862
Uterus, Combination of Carcinoma		What is Disease,	715
and Tuberculosis of the,	224	When Digitalis Disagrees,	400
The Rational Treatment of In-		Why Students of Medicine Should	
fections of the,	54	Select the Homœopathic School, .	371
A Modified Operation for Sus-		Whooping-Cough, The Open-Air	
pension of the,	707	Treatment of Broncho-Pneu-	
The Method of Operation for		monia Complicating,	473
Cancer of the,	55	Cough, Ammoniac Bromidum	
Rupture of the,	56	in Severe Types of,	319
In Manual Separation of the			
Placenta, Rupture of the,	465		

	PAGE		PAGE
Why Not Absolute Precision in Chyme Analysis.	64	Woodman, R. C. Manic-Depressive Insanity With Illustrated Cases, .	1
Widal's Reaction Rendered Easy, .	546	X-Ray, Diagnosis of Gall-Stones by, .	849
Wilcox, Sidney F., M.D. The Ap- pendix and Its Neighbors, . . .	767	Cancer and the,	864
Wilson, John E., M.D. Spastic Para- plegia,	277	Chronic Trachoma Cured by the, .	312
Wiring of Bone for Recent and Un- united Fracture,	381	Chronic Trachoma Amenable to the,	705
Wolcott, Edward H., M.D. Modern Method of Studying Drug-Action, .	252	Treatment of Sarcomas by the, .	302
Women, Gonorrhœa in. Theodore L. Chase, M.D.,	241	Treatment, Results of,	865
Leucocytosis in Diseases of, . .	224	Yeast Treatment of Gonorrhœa in Women,	389
The Mud-Baths of Franzensbad for Treatment of Diseases of, .	54	Zinc in Infantile Diarrhœa, Oxide of. Late McClatchey, M.D., .	275
Wood, James C., M.D. Pudendal Hæmatocele,	272		

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